THE ALABAMA
MEDICAL JOURNAL.

VOL. 12. JULY, 1900. NO. 8

Original Communications.

THE DIAGNOSTIC VALUE OF ENDOSCOPY AND CYSTOSCOPY

BY JAMES E. DEDMAN, A.B., M.D.

Read before the Jefferson County Medical Society, June 25, 1900.

Gentlemen:—It is my pleasure tonight to address you upon a subject that during the past decade has engaged the earnest attention, not only of genito-urinary surgeons, but of the general practitioner as well. As the employment of the endoscope and cystoscope is unjustifiable until all other means of urethral and cystic diagnosis have been exhausted, I shall perhaps not be considered "de trop" if I first enter into a discussion of those important subjects, especially of general urethral diagnosis.

Acute gonorrhœa is the most frequent etiological factor in cases where endoscopy is required, so I want to say a few words concerning it. There is a too great tendency amongst the laity to regard gonorrhœa as a mild, insignificant trouble—one in fact to be laughed at and made sport of; but the most casual observer has perhaps noticed that it is always the other fellow that does the laughing. I believe that it is the duty of every physician to impress upon every patient suffering with gonorrhœa, the real gravity of his case, and to disabuse his mind of the prevalent idea that he has a disease which is no worse than a bad cold. Speaking of this, Dr. G. Frank Lydston, of Chicago, says: "The patient expects more from the surgeon and the surgeon expects more from remedies than in almost any other disease. The fallacious notion of the simplicity of gonorrhœa and its congeners, has proved disastrous. Physicians should embrace every opportunity to impress the patient with the fact that gonorrhœa is one of the most severe, and perhaps THE most far-reaching in its results of all the infectious diseases. It is not only worse than a bad cold, but it is far worse than its much dreaded rival for venereal popularity—syphilis."

I am glad that such an eminent authority as Dr. Lydston has expressed himself so plainly and forcibly upon this point, for, in my humble opinion, it is a great misfortune that patients suffering with gonorrhœa should almost invariably labor under the detrimental idea that it is not serious! Just as soon as the acute symptoms and ardor urinæ subside, he will himself join in the joke idea, and no sooner has the discharge ceased than he believes himself cured, and oft-times imagines that the physician is detaining him thereafter in order to obtain a fatter fee.

Just as the post--partum stage of labor is the most important, and the most generally neglected, so it is with gonorrhœa after the cessation of the discharge. My experience is, that no patient should be turned loose for at least two weeks (generally three or four) after the discharge ceases, and not until a careful analysis of his urine has been made on two or three occasions. Perhaps in your minds I assume the rôle of pessimist in making this statement, but many times I have had cases under my observation that I thought cured—asked for a specimen of urine and found it loaded with tripper faden. It is these apparently cured cases that are discharged as well, that are yet destined to come under the surgeon's care with a trouble far more serious than the primary one—a trouble with the stamp of chronicity and its attendant ravages upon it.

In passing, let me call attention to an apparently trivial matter, and yet one that is, upon mature thought, of the greatest importance. It is in regard to the multiplicity of dressings that are applied to the penis during an attack of urethritis. I have recently noticed that an eminent authority upon genito-urinary diseases essays the recommendation to place a pledget of cotton saturated with a 1 to 10,000 or 1 to 15,000 solution of bichloride of mercury over the meatus after each injection or urination. I raise my voice in protest against this practice. It is unclean, painful, and is sure to produce bad sequellæ in nearly every case. Since the gonorrhœal infection is capable of traveling by contiguity, if the meatus is occluded with cotton or other material, the discharge will dam back, and thus extend the inflammatory process to the posterior urethra. It has been my practice for a number of years to use the simple device which I herewith present.

As you will note, it consists of a piece of soft cloth, 6 inches square, generally cheese cloth or ordinary bandage cloth. A circular hole is cut in the centre of sufficiently small circumference that it fits tightly over the glans where the corona will prevent it from slipping. The corners are brought together and thus hang loosely, allowing the discharge to freely flow into the cloth where it is absorbed. With this device there is no danger whatever of occluding the meatus. Of course it should be changed at least two or three times a day where the discharge is profuse.

I have also used for this purpose a sock pinned to the undershirt, and

into this the penis is worn, and thus the meatus is in no wise occluded—the discharge passes out and can be retained by a pledget of cotton placed in the bottom of the sock.

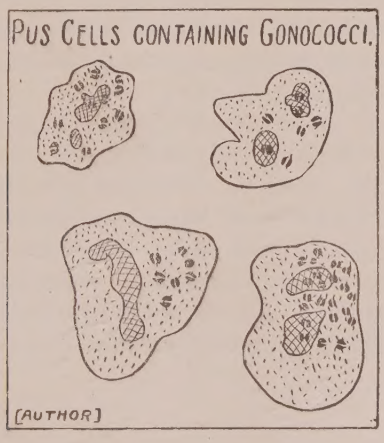
Perhaps the most frequent sequella of acute gonorrhœa is the chronic form of the disease, and in all the category of disease there is nothing so oft-times obstinate to all therapeusis as chronic urethritis. I do not believe I exaggerate when I say that the majority of cases of acute gonorrhœa assume the chronic state, or, in other words, less than 50 per cent. of acute cases are cured as such, and never present any aftermath. This is due to the fact that the disease is generally regarded as insignificant, and many cases do not come under the care of a physician; and also it is due to the fact that many cases are prematurely discharged that do come under the physician's care. No patient can be pronounced well until:

1. There is absolutely no discharge.

2. No tripper fäden—or else if they are few and rise to the surface, and contain no gonococci.

3. When neither stricture nor prostatis exist.

In chronic gonorrhœa 92 per cent. of the cases become posterior. I mean by posterior, all that portion of the urethra behind the compressor muscle which would thus include the membranous and prostatic portions. The diagnosis of chronic urethritis is not difficult. It is in the anterior urethra it will manifest itself by the presence of a bead of matter at the meatus, this being especially notable in the morning (gouttee militaire), as the discharge has had opportunity to collect during the night. If the patient be directed to urinate in two glasses, the first specimen will be cloudy, while the second will be comparatively or wholly clear. Large shreds may be seen floating in the first urine—these consisting of pus, mucous and entangled epithelial cells—and known as Tripper fäden, or clap threads. Upon microscopical examination the pus cells and epithelia may contain gonococci, but oft-times the coccus will not be found.



This negative result, however, does not eliminate the element of contagion, for often such apparently inocuous cases may become loaded with gonococci as a result of alcoholic indulgence or sexual excess. Of course in these instances the cocci have merely been dormant either in the crypts or submucosa. This is quite an important medico-legal point, for it is these cases in which innocent women are accused of being the source of a disease contracted elsewhere months or even years before, and who in turn do contract it from their indignant accusers.

If the disease is in the posterior urethra, the discharge (if there be any) cannot overcome the resistance of the impressor urethræ muscle, into the bladder, co-mingling with the contained urine. Again we try the two-glass test. If the contents of the first glass be turbid, and also the second, it is good evidence of a posterior trouble; and if the second glass have more turbidity than the first, the evidence is conclusive. Often the discharge will be quite scant, and there will not be sufficient turbidity to make a clear diagnosis of posterior trouble. It is my custom in these cases to wash out the anterior urethra with Valentine's irrigator, then direct the patient to urinate, and if there be any turbidity there is surely some posterior trouble. I notice that many high authorities recommend to wash out the anterior urethra with a catheter in making this diagnosis. I do not see the indication here for retrojection when the Valentine method is so thorough in its washing, and why should the patient be annoyed with catheterization when a so much simpler means answers every purpose?

There are many pretty points in diagnosis that present themselves at this juncture, viz.: If there is turbidity in the second glass how shall we tell whether we have a posterior urethritis, a seminal vesiculitis, a prostatis, a cystitis, or even a pelvic nephritis? Of course the microscope, chemical analysis of the urine, and subjective symptoms will clear the diagnosis, but let me mention an important test as to the differential diagnosis between anterior urethritis, seminal vesiculitis, and posterior trouble. (Under the caption of posterior trouble I mean inflammations posterior to the cut-off muscle, and include posterior urethritis, prostatitis, cystitis and pelvic nephritis.)

The patient is directed to urinate in three glasses. The first will represent the washings of the anterior urethra plus part of the turbidity of the posterior urethra. Now, as the second urination is made, let the index finger of the right hand be introduced into the rectum, and while firm pressure is being made with the left hand upon the hypo-gastrium—make moderate pressure upon the seminal vesicals with the examining finger. If then the second glass exceed the first and third in turbidity, the trouble is located in the seminal vesicals.

Most frequently instead of there being a diffuse area of inflammation, the discharge will come from single or multiple points of granulation. It is these cases that give us so much trouble, and that so stubbornly resist all therapeutic efforts.

First, how can we determine that granulations exist? The answer is, of course, apparent—ocular demonstration with some of the various endoscopes. After having used every means of diagnosis, the most important of which I have pointed out, we then resort to endoscopy. Urethrascopy would perhaps be the better term, but Desormaux called the first instrument of this kind an "endoscope" (from endos, within, and skopein—to look), and that name is applied to it at the present time. He presented his instrument to the Academy of Medicine at Paris in 1853, and since that time perhaps Grünfeld and Orelander have done more than any other men to perfect it.

After using a number of endoscopes, I am satisfied that the one of Klotz is the best. In this the funnel end is discarded and a black disc used instead. It cannot distend the meatus as do the funneled-end kinds, and the black disc does away with the extremely annoying reflexes. Most any of the various dilating specula will suffice for a view of the first two of three inches of the urethra. Perhaps the speculum of Tilden Brown is the best, but there is always more or less bulging of the urethral walls, and considerable anæmia from the pressure of the blades. The endoscope of Oberlander has a mignon lamp at the distal end, but is not very must in use in this country. The Klotz tube, and an ordinary head mirror of about ten inch focal length are perhaps more in use here than any other, though the Otis modification of it (which has a mignon lamp at the proximal end) is becoming deservedly popular and is the one I personally prefer. Tubes under 23 French are of little use, and it is well to have a set of different calibres and lengths. Klotz says the following set will suffice for all purposes, viz.: A No. 23 French that is 3 inches long, a 24 that is 4 1-2 inches, a 26 that is 4 1-2 to 5 1-2 inches, a 28 of 5 1-2 inches length, and a 30 and 32 of 5 1-2 inches.

Other articles that are necessary in diagnoisis and treatment are tampon holders, a fine curette, probes, minute knives, pointed, blunt and curved scissors, forceps, wire snare and galvano-cautery electrodes.

For the application of medicines to the urethra absorbent cotton is far superior to any other medium.

The patient in the lithotomy position, endoscopic tube aseptic and lubricated with either boroglyceride or vaseline, we proceed with the examination. No trouble is usually experienced in passing the compressor muscle with the straight tube, but sometimes I find it necessary to inject perhaps a dram of a 5 per cent cocaine solution. I think it is

decidedly best to avoid using the cocaine if possible. Quite often a placebo of distilled water will accomplish all that is desired. I shall not dwell upon the technique of procedure which is undoubtedly quite familiar to all, but I wish to present for your consideration some charts which I have made of the normal endoscopic urethra. While of course this paper concerns the pathological still it is exceedingly important to first dwell upon the normal. As we usually start from the prostatic urethra, I first present a diagram showing a typical picture of this part. Here we see the veru montanum or colliculus seminalis in the centre of the field with the lateral folds of the urethra infringing upon it. Unless the tube is in the exact longitudinal axis of the urethra the colliculus will not be seen, for the distal end of the tube will merely slide along a lateral sulcus, and thus not engage it in the field of view. Next we see the colliculus with the opening of the sinus pocularis or, as it is often called, the uterus masculinus—into which are emptied the ejaculatory ducts. Next a portion of the membranous urethra. In the centre of the funnel we see the dark spot known as the central figure (so named by Grünfeld) and radiating from it the pinkish folds of the mucosa. Here the central figure may be a circular spot, or a vertical slit. As we come from the membranous portion into the bulb, the funnel may disappear altogether, and one or two large folds of mucosa cover the field of observation. However, I agree with Dr. Klotz that the pouch-like bulb is seen much more frequently in anatomical pictures than it is in the urethra. As we approach the proximal end, the color becomes lighter and begins to assume the characteristic salmon-pink. In the accompanying diagram the posterior portion of the pendulous urethra is shown. Note the central figure, which now runs transversely, oftentimes rectangular in appearance, and the radiating folds of mucous membrane. Next the anterior portion of the pendulous portion, transverse slit, color considerably lighter. As we approach the fossa navicularis, the central figure becomes triangular, and finally appears as a vertical slit. If we depress the proximal end of the tube (as the distal ends is in the pendulous portion), we get a picture like the one here presented, and in this parietal position of the tube the lacunæ morgagni can be seen scattered here and there as small indentations in the mucosa.

Such, then, is the normal appearance of the male urethra. With this implanted in the mind, how easy it is to recognize the pathological and how very important that we should do so in coping with chronic inflammatory conditions of the urethra. Here is a patient who presents himself, giving a history of acute urethritis one, two or three years ago. Thinking himself cured, he pursues the evil tenor of his way. Betimes he notices a slight mucous or purulent discharge, or mayhap it is only

a bead of matter occluding the meatus in the morning as he arises. After unsuccessfully trying his three-days' prescription, which he always carries in his inside pocket and philanthropically distributes amongst his unfortunate friends, he consults a physician. Sad to relate, what is the most frequent denouement? He is carried through the routine of injections, and irrigations, of balsams and diuretics ad libitum (and also ad nauseatum), of sounds and often urethrotomy, and still, like Hamlet's ghost, that irritatingly persistent little bead of discharge is ever present. 'Tis the old, old story of chasing the will o' the wisp. Thanks to Desormeaux and others, we have a means, via endoscopy, of getting at the seat of the trouble and thus effecting a cure.

Pathological changes in the urethra manifest themselves as follows: Change in the color of the mucosa, change in its elasticity, due to hypertrophy and infiltrations, manifesting itself in a different appearance of the funnel and central figure, and also change in the character of the tissue. Where we have a very œdematous mucosa, the endoscopic funnel is entirely obliterated, and the distal end of the tube is filled with the hyperæmic membrane.

We may run up against a stricture which cannot be passed, but even then we can view its proximal aspect and tell whether it is merely a spasmodic stricture or one due to pathological metamorphosis. It may be a stricture which has resisted all efforts to be passed, even with filiforms. With the endoscope we can find its lumen, pass the filiform, and then with the tunnelled sound enter the bladder.

In locating granular patches, the endoscope performs one of its best functions, for they rank well up to the top of the list as the most frequent cause of chronic urethral troubles. As they bleed so easily, they are perhaps due more to dilatation of the blood vessels than to hypertrophy of the mucous glands or papillary conditions of the mucosa, as claimed by some. These granulations are very frequently associated with pathological conditions of the lacunæ morgagni, the latter playing often the star role in chronic inflammations of the urethra.

I regret now that I did not confine this paper to endoscopy alone, so that I might dwell upon its usefulness in the treatment of these troubles, and I only have time to enumerate other conditions which are diagnosed by the aid of the endoscope. They are neoplasms, warts and polypi (And here let me mention that the colliculus seminalis is often mistaken for a polyp.) As to warts, they are generally found close to the meatus and most usually associated with venereal warts on the frenum or glans. Polypi occur as far back as the prostatic portion, and generally look white or of a bluish cast; they are soft and easily movable.

As I have said, I cannot go into the subject of endoscopic treatment

but I hope I have succeeded in showing what an important factor is the endoscope in the diagnosis of chronic urethral disease. In fact, it is ofttimes absolutely indispensable, and is the only means we have at hand for the diagnosis of certain of these conditions which I have mentioned.

Now a few words as to cystoscopy. Nitze, of Berlin, has done, perhaps, more than any other man towards making practical a direct examination of the cystic walls by means of electric illumination. In 1876 Nitze lived at Dresden; but becoming interested in this work, he moved to Vienna, and work in collaboration with Leiter, the well known instrument maker. To be brief, Nitze and Leiter split up on the question of the lamp to be used; Nitze moved to Berlin and employed Hartwig to manufacture his instrument, and Leiter continued the manufacture of practically the same thing at Vienna.

It really requires three different types of cystocopes to make a thorough inspection of the entire surface of the bladder. As perhaps many here are not familiar with the instrument, I herewith present it for your inspection. This is what is known as the plain No. 1 cystoscope. The No. 2 has the light and the prism upon the convex aspect, and is used for inspecting the fundus. No. 3 is for the examination of the internal urethral orifice and prostate; its head is considerably longer and at nearly a right angle to the shaft. The No. 1 will, however, answer all practical purposes, as it can be shifted so as to bring into view almost every portion of the viscus. Quite an improvement upon this is Nitze's irrigating cystoscope, which not only keeps the injected solution clear, but also prevents the occlusion of the prism by blood, mucous or other material. The size of the instrument I present is 22 French, and it requires about 8 to 10 volts to give the proper illumination. This can be secured either from a wet-cell battery, a storage battery, or from the incandescent circuit which can be found in all cities. Unfortunately, in the business district of Birmingham the direct current is used, and the only way this can be utilized is to transfer it to a storage battery and thence to the lamps. If we had the alternating current, a converter could be used which would give us, direct from the lamp socket, any voltage desired.

As in endoscopy, the patient is placed in the lithotomy position. The bladder is washed out with clear, warm and sterile water, either by means of Valentine's irrigator or a catheter. About five ounces of the sterile water is then injected. Experience has proven that for the average bladder this is the proper quantity. Too much water distends the viscus and gets the walls too far from the prism. Too little is dangerous, as the walls would be burned with the lamp. If it is necessary to inject cocaine, three or four ounces of a two or three per cent. solution can

be thrown in and left for five minutes. There is little danger of absorption on account of the squamous epithelium that line the bladder wall. Still, if there is an abrasion, absorption can take place, but certainly not enough in five minutes to do any harm. The deep urethra can be cocainized by using the Keyes-Ultzman syringe and a four per cent. solution of the drug. Normally the color of the cystic mucosa is a salmon pink—the blood vessels and their anastomoses show distinctly, as do the transverse and longitudinal fibres at the trigonum. The ureters are seen usually opening as slits upon tiny prominences, which Kelly has termed the mons ureteris. They can be located by the little swirls of urine gushing out from them every half or three-quarters of a minute. This so-called swirl is quite characteristic, and can be seen whenever urine is poured into a test-tube containing water.

The pathological conditions to be diagnosed are trabeculæ, ulcerations, deep congestion, neoplasms, calculi (encysted and free), foreign extraneous bodies, pouches, prostatic enlargement (if it is sufficient to project into the vesical cavity), encrustations of the bladder walls ,dilatations and abnormalities of the ureters, and oft-times kidney or renal pelvic troubles, if purulent fluid or blood is seen to issue from either ureter.

Besides locating the pathological condition or lesion, we can often tell the detail of the trouble we are confronting. For example, we may discern the nature and extent of ulcerations, the kind of neoplasm or calculus, whether a calculus is free or encysted, which kidney is involved, etc.

I would that I had the time to enter into a more minute description of cystoscopy in each of these conditions; but of course cannot do so in this paper, which has already assumed a more lengthy proportion than I originally intended. However, I will briefly take up the two most important and most frequently met with pathological conditions, viz., cystitis and hypertrophy of the prostate.

Cystitis may be (1) acute, (2) sub-acute, (3) chronic, (4) croupous, (5) tubercular. It is always produced by infection and can not be produced otherwise. In making this statement, I know I strike a blow at some past theories upon this subject. Normal urine is sterile. Upon the introduction of pyogenic germs into the bladder, there is generally no infection, especially in the absence of abrasion; but if there is infection, it is merely an ephemeral one and will quickly disappear. One germ, however, is an exception to this rule, and that is the uro-bacillus liquefaciens septicus of Krogius, and this bacillus seems to exert a most harmful influence upon the kidneys and bladder. It is the only known germ that can set up a cystitis without some primary cause, such as

traumatism; but fortunately it is of rare occurrence. The ammoniacal urine that has been said to be a cause of cystitis is but a secondary effect, and is simply due to decomposition of urea into ammonium carbonate, the whole due to the presence of bacteria. The infection may be (1) ascending—from the urethra; (2) descending—from the kidneys; (3) parietal—from some adjacent infection in the bowels, and in females from the uterus, ovaries and tubes.

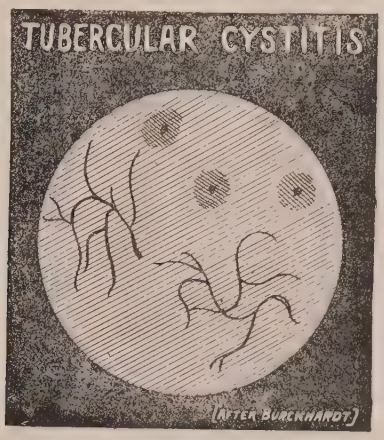
Cystoscopy in acute cystitis is entirely contra-indicated, just as are the catheter and sounds. Resolution may occur, and the disease here end; but perhaps the large majority of cases assumes the sub-acute or chronic form, and it is in the latter that the cystoscope plays an important diagnostic role. The infection in chronic cystitis is generally a mixed one, and the bacteria most frequent are the bacillus coli communis, staphylococcus and streptococcus pyogenes, uro-bacillus liquefaciens, the gonococcus of Neisser and the tubercle bacillus.

Cystoscopically the vesical mucosa may appear pale, often grayish, and we may see muco pus adherent to the walls. There may be a mottled appearance and often, owing to a decomposition of hæmoglobin in the extravasated blood, the mucosa may become pigmented, brown or slate-colored. The rugæ are hypertrophied, and there may be erosions, especially upon elevated portions. Deep ulcerations may take place, the muscular coat may become paralyzed, and considerable hypertrophy ensue from the concomitant loss of tonicity. The mucosa is often encrusted with urinary salts. The inflammatory process may assume a necrotic character, and patches of mucosa peel off, leaving brownish or grayish ulcerations. This gangrenous condition may be suppurative in character, and extend to the sub-mucosa and inter-muscular connective tissue, the adjacent parts becoming infiltrated with pus, either diffuse or as circumscribed abscesses which may open internally or externally and form deep ulcers. The rugæ may be so swollen that they will be often mistaken for a tumor, especially if near the internal urethral orifice where the picture is considerably magnified.

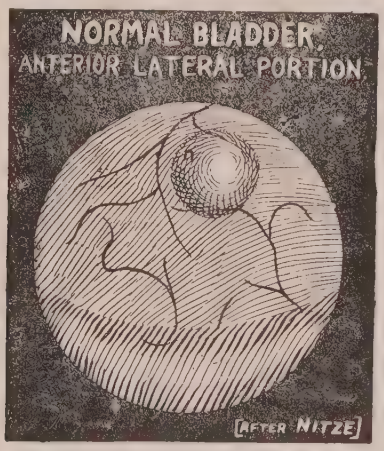
In the croupous variety, patches of fibrin (either granular or fibrillar) may appear on the mucosa. This may occur in connection with any of the lesions already mentioned, or may occur in connection with or as an aftermath of some of the severe infectious diseases, such as measles, scarlet fever, diphtheria and typhoid fever.

In tubercular cystitis, the miliary tubercles are often seen. I report a case of Burckhardt: "Man, 37, chronic gonorrhœal urethritis, with following cystitis (for nine months). No gonococci, no tubercle bacilli. Local treatment without improvement. Cystoscopy: mucous membrane hyperæmic, dotted with numerous minute ecchymoses, their circumference dark red. Many anostamosing vessels; tuberculosis suspected;

diagnosis later confirmed, as tubercular epididymitis developed bilaterally and necessitates castration."

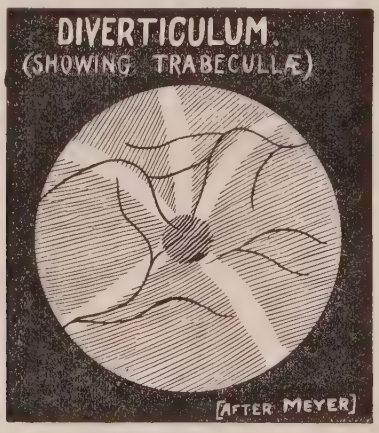


In prostatic hypertrophy the No. 2 cystoscope is needed for a good picture, but it can be seen with the No. 1. However, with the No. 1 only the lateral lobes can be seen, as the median lobe lies in the shadow. The diagnostic point upon which to rely is the fold of mucous membrane upon the superior circumference of the internal urethral orifice. Normally, this appears as a crescent, perfectly regular in outline. If the prostate is hypertrophied, it will assume an angular shape, or at any rate will be quite irregular in outline and often nodular.



Prostatic hypertrophy is nearly always associated with a trabecular bladder. Diverticula bear a close relationship to trabeculæ, and I pre-

sent a diagram by Dr. Meyer, with the following report upon the case: "Man, 64, diabetic, hypertrophy of prostate, chronic catarrh. Cystoscopy.: all symptoms of chronic catarrh, trabecular bladder. A little above the mouth of the left ureter a large dark spot of about the size of a five cent piece, its lining mucous membrane wrinkled; no more dark spots visible. Light of cystoscope turned off, and the tip posted right in front of this spot, gently pushed forward. It evidently enters a cavity, but touches no concrement. Diagnosis: diverticulum. Two years later, epicystotomy becomes imperative, and shows a large diverticulum at diagnosticated spot (then) filled with phosphatic debris."



Foreign bodies in the bladder can, of course, be easily demonstrated with the cystoscope, and hence the latter performs an important mission for operative procedure, as oft-times they may escape every other method of detection. This applies not only to foreign extraneous bodies, but to stones, and especially to tumors, which latter cannot be detected in any other way in their incipiency.

As to the early detection of renal disease, the cystoscope is most valuable in the hands of the surgeon. A patient presents himself with a hæmaturia. If the hemorrhagic source is in the urethra, the endoscope will show it. Mayhap it be a neoplasm of the cystic wall; if so, the cystoscope will reveal it. Suppose a negative result is obtained so far as the urethra and bladder are concerned, the attention is then turned to the ureters, and not only is the hemorrhage shown to come from above, but the side from whence it comes is at once located. The following interesting case is reported by Fenwick, of London:

"Man, 30, intermittent hæmaturia since 2 years. Urine often more bloody towards the finish. Cystoscopy: the entire bladder was healthy.

I was just giving up the examination in despair, when I saw a stream of brightish blood shoot right across the prism. Keeping the instrument fixed, I waited until the medium became clear again, and then I found that I was watching the orifice of the right ureter. In another second a jet of bloody urine burst from the tiny opening, and after forming many rings, it paled by diffusion and disappeared, only to be replaced by a successor. The right renal source of the hemorrhage was at once indicated."

Cystoscopy is as yet in its infancy. I know of nothing that offers such a seductive field to the surgeon as this interesting and valuable work. To me it is exceedingly fascinating, and I hope at some subsequent date to give a further account of my research in this line.

Nitze at present is perfecting his new operating cystoscope, with which tumors and other foreign bodies can be removed under direct ocular observation. There is already upon the market a cystoscope with an attachment for catheterization of the ureters, but I have had no personal experience with it, and understand that it is quite difficult to operate successfully.

Of course cystoscopy in the female is a much easier proposition, and the ureter can readily be catheterized. Dr. Howard A. Kelley has given us some valuable contributions in this work. There is no doubt but that both the endoscope and cystoscope are most valuable diagnostic adjuncts in genito-urinary diseases, and that they clear up obscure troubles which never could be located in any other way. With the knowledge already at hand, and the magnificent field yet to be covered in this interesting field, a vista of wonderful possibilities is opened to our admiring gaze.

209½ Nineteenth Street, North, Birmingham, Ala.

PREVENTION.

By R. C. Bankston, M.D.,

BIRMINGHAM, ALA.

Read before the Jefferson County Medical Society, June 25, 1900.

Mr. President and Gentlemen: In giving you this paper on Prevention, I do not propose to go into detail and tell you that quinine will prevent malaria, nor do I propose to consider the subject from any similar view point. What I want to do is to ask, Will cure be superseded by prevention? That sentence contains two propositions—cure and prevention—and is a subject worthy of our interest and discussion. Both propositions have advocates, yet both must be modified before either becomes acceptable as fact. Both are advocated earnestly, each having

a formidable array of intelligence espousing its cause, yet neither is correct. Failure results from the application of either often enough to shake faith to its foundation.

Therefore, we admit that neither, as practiced, is very efficacious. There is error in our present course which has escaped detection. However, we believe that science will sift the matter to a finish and correct the error.

We know that we are groping in error, because our theories won't go through the mill of experience with reliability as to certain invariable results wanted, which would be so if we were correct in our hypotheses. This topic is one of magnitude; though all who have grappled it heretofore have gone down in defeat, yet its utilitarianism is admissible. Though it may be considered utopian by some, it is an important question of concern to all from its far-reaching result upon posterity. The world has never been better equipped for its consideration than now. If you delve in its caverns or tread its pathways you will be confronted with unnumbered mazes which radiate from its recesses and open before you, suggesting you onward through devious ways to places of such grand proportions that mind is appalled at its mystery and fails to grasp the meaning of such intricacies of reality with any comprehensive degree of appreciation.

Those avenues will be exploited through the aid of medical science and made plain for man's benefit; it is only a question of time and means. We will leave the further consideration of this line of thought to the future with this remark. In this progressive age we may prepare for news of scientific revelation that will revolutionize pet theories, explode old ideas, and in their stead establish a new order of procedure on an enlightened basis, liberal in its plan and scope, which will reveal the subject in brighter light than has yet been reflected upon it; marking it a forward movement in progress that will propel us far on the way to our destination in the harbor of knowledge and certainty.

From a close study of the subject, I feel sure that the new order will be prevention. I cannot reason out a better solution than prevention. That word will be the key to the arch of future practice. You must be contented now with a brief exposition of the subject. Please supply in your mind points which are relevant but too voluminous for consideration here. A great deal could be added under this heading, rendering it impracticable to apply the paper to this occasion.

What will we endeavor to do will be to offer some suggestions on the relation of natural forces to phenomena governing vital existence and their application to prevention of disease.

The disturbances of normal relation causing disease in the body are

either physico-organic, or psychico-mental in character, with a manifestation peculiar to the specific potential called cause. That the disturbances of the future will be psychical instead of physical, I believe; because I feel sure that our germ theory being correct, we will eventually settle upon some method which, when properly applied, will eradicate contagions and destroy the germ-breeding fields, leaving the psychical disorders to be contended with, which can be governed by regulating the habits and burning the candle of life at only one end, thereby continuing the vital principles for the longest period consistent with the store of energy made in the economy by the mechanism of the body.

There are no present indications that curative medicine will pass out of our curriculum as the proper means to employ, but prevention is the measure that will exercise our future talent. To appreciate the subject of prevention, we must define it as meaning any measure that will prevent the appearance of any disease in man. To understand prevention, we must know that disease is a manifestation of disturbed relation due to a specific cause, which as a morbific process is received from without into the body. Such cause engendered and spread through various sources may constitute any specific character of disease, owing to kind, quantity and potency of the germ, modified by surrounding circumstances or conditions.

They are demonstrable from impaired function of some part of the body, or the affection of some organ in great or small degree. We must consider in this connection the powers of vital resistance, which materially alters the evidence of specific type as manifested in different individuals. We must also accept the condition of mentality as a modifying factor in a preventive course. A healthy mind is conducive to a relative condition of the body.

That mind governs matter is a known physiological fact, consequently if we cultivate and obtain a high mental perfection, we may incidentally obtain a similar condition of body. To invigorate the one usually endows the other with better qualities. I am not like some who apprehend that mind can only develop at expense of the bodily vigor and longevity; on the contrary, I believe that a highly cultivated mind is conducive to long vital existence. The development of one is the result of cultivation; development of the other is incidental thereto, or a natural sequence of the first; both are better as a result of mental cultivation.

Physiologists who have studied natural laws agree that the period of human life, were we living upon a true biological basis, and "if all forces that could were brought to bear on longevity" should be increased from about thirty years as the average of life expectancy to ninety years or more. In other words, we are, under our present system, living about

one-third as long as we ought naturally expect to. There is radical error in our mode of life to cut expectancy down to such a rate. The question occurs, what causes operative are responsible for such a decreased ratio? What course, if taken, will give the rightful result under a working of the natural plan of vital existence? In considering those causes, operative and effective, we would like to detail and analyze them separately; they are so closely analogous we cannot do so without becoming too verbose. Therefore we will consider them together as a total.

Among the first is the elimination of germ potentials. A proper attention to bodily function. A due appreciation of physiological laws and hygiene. A vigorous watch over the sources of contamination through air, water and food, and a proper disposal of all effete matter by cremation, there are many practical points of value which ought to be kept prominently before the public, that should be taught in our schools and lecture rooms, with which people generally should be conversant for their individual and the public good, prominent among which should be the physiological preservation of the processes of youth and development of creative energies, restricting numbers and increasing vital force.

I will not attempt to offer any hard and fast suggestions for guidance, however, we know so much more today about the causes of disease in a real accurate way, that I am surprised that the doctrine of prevention is not more freely advocated and wise laws passed restricting transgression and inflicting severe punishment for their violation.

The success of prevention is in the strict observance of all moral and natural laws in an intelligent way. Any violation of nature's laws operating intrinsically or interference with the extrinsic correlative forces of life, or with the working of economy, when tuned to harmonious accord, will result in disorder commensurate to the extent of such disturbance of a character relatively balanced to the special cause as we know it. The study of moral pathology and the physical aspect of medical science is being considered. We may expect as a result of such investigation propositions which will modify present views on the subject of disease and its treatment. We are now ready to admit the advisability of the change, why procrastinate, and allow disease to enter the body and then attempt its cure when we can, with accuracy, prevent it? We are nearing the time when the germ scourges of the world will be hunted out of their propagating places and destroyed, thereby obliterating those diseases, which leaves only those conditions of a psychical nature to perplex the physician.

Psychical diseases are now being classified, and must also be eliminated if the balance between psychism and animality is to be maintained. Neither can exalt nor deteriorate to any great extent, or relation for

existence is lost; equilibrium in certain bounds must maintain, and synthetic conditions prevail. The far-sighted man, who plans for the future, is the greatest benefactor of his age. In dealing with the subject of prevention, we are grappling an elemental truth which we must make plainly perceptive to our posterity for their good.

Take the mental and nervous disorders; they are on the increase. We know what they signify—disturbance of relation. What can be done to keep the balance or retain an harmonious proportion between psychic man and animality; between psychic force and vital matter. The only method that can rationally be pursued or that is worth considering is to build up psychic man to the highest moral perfection consistent with vital relation, which must be preserved.

What causes now operative are most antagonistic to the spirit of prevention? Unholy venality by debasement of hygiene and other corrupt and immoral practices, degenerative in their tendency. Therefore to prevent that condition, we should stigmatize the violation of moral law that the transgressor may be under the ban of severest condemnation, under the ignominy of such severe disgrace that he will be beheld with horror as a social leper.

A violation of the laws of health should be punished in an adequate way; the transgressor should be made to realize that his bad acts may be reflected in a vicious or degenerate posterity. Therefore, teach him that bad acts are infamous and punishment comes in the shape of vicious degeneracy before alluded to. The penalty falls as an unworthy heritage upon innocent posterity. As a psychic phenomena, the consequences in all its loathsome reality will appear to the intelligent observer for generations to come. Marriage with such degenerates will be far-reaching in its bad results. The man of mind who can grasp the facts we are all groping after and formulate them into a comprehensive shape for acceptance, will be worthy of deification. Will live in the annals of the world as long as the forces of the universe are maintained. Before many decades it will be recognized that the germs then existing will not be a factor in the production of disease. The virile are sure to be exterminated; a germ capable of attacking healthy tissue and producing morbid results will be unknown. The germs then present will perform a necessary function in the great act of change upon which all continuance depends. If this theory is correct and should they be present and capable of manifesting themselves as a generator of disease, their effect will be nullified by increasing human vitality and the qualities of man's resistance through moral and psychic influence to the point where disease can no longer impress him. That fact will be accomplished through strict attention to details of hygiene with due regard to co-operative working

of moral forces and an intelligent appreciation of a high psychic quality for the relations of affinity and government of the organs of life.

I hail the coming of prevention with satisfaction and appreciate the fact that it will open the way to the application of the laws of vital resistance to the prevention of organic disturbance. By knowledge of psychic phenomena we can resist the impress of disease potentials by keeping upon a high vital plane. Then may we expect the passing of curative medicine to the record of world's history and the practice of prevention as the means of engendering a condition of vitality so high in quality that disease will be unknown. With the eradication of all disease from the body, leaving a perfect man who will only die when the forces of nature are exhausted, and the organized structure of the body will need resolving into original components for use in furthering the plan of continuance. In advancing these thoughts I expect to suffer by comparison with the realists; all attempts at ideation does. It is customary to underestimate a theory until it is demonstrated a fact; after that stage is passed, intelligent conservatism will admit the idea as a created realism worthy of all commendation. Any means that will educate the mind of man to a comprehension of these facts or any influence that will effectuate this great conception, and establish prevention as a science and elevate it from the category of the arts, is worthy of consideration.

The avowed object of future practice will be the knowledge and removal of causes as the true way to battle the known disturbances of health. Demonstrate the value of prevention applied in a scientific way with assurance of result, and you will have placed your name higher upon the scroll of fame than any name preceding it. We are advancing intelligently to a realization that the potentials of disease may be either destroyed at its point of propagation, or nullified afterwards, when by destruction of germs we eliminate the extra potentials of disease, then will we be ready to grapple with relative disturbances as psychological problems, and no doubt we will be equal to the occasion. At no previous time has thought been more enlightened than now. We know that nature holds secrets essential to our further progress in enlightenment When we are educated to a point of appreciation they will be disclosed, and we will be found worthy recipients of rich stores of information which would seem marvelous if they were not disclosed; would revolutionize old views and relegate to oblivion our pet theories of today.

As men of thought and culture, as moulders of opinion, we are, as it were, pioneers preparing public mind for the change. Let's keep well to the front as scientists and push investigation of prevention to and across the borders of the unknown. By hypothesis we can draw conclusions

from suggestive landmarks which will guide us in our efforts to reach the destination of our ambition Prevention. That fact accomplished, we can leave the pessimistic field of doubt for the glorious altruism of certainty, where true knowledge of cause will be appreciated as philosophical optimism, and met upon a level that will give prevention decisive victory.

I feel so sure of the tenability of my position that I say, the nations of the earth could better employ their energies in combating the germs of disease than in the art of extinguishing one another. International congresses of scientists of the governments of the world should meet and make the application of prevention world-wide in its object. With present facilities for communication, which practically has annihilated time and distance, the task could be accomplished.

Annihilate germs, employ means to increase vitality, eliminate hereditary taint and blemish by a wise restriction of marriage laws and prohibition of illicit intercourse; promote the transmission of high vital qualities through paternalism; those observances, coupled with the removal of outside potentials, would give the desired result. Under such conditions man would enjoy his ninety or more years in peaceful health and should be happy.

By a rational course of reasoning, germs disturb functions, which causes disease, followed by degeneracy, which is responsible for crime, which causes unhappiness; therefore, apply prevention to the first cause and the train of evils will not follow. Apply prevention generally, and the crystallization of all hopes on the subject will be materialized.

Should my conclusions prove fallacious, I am open to conviction. As an advocate of the science of prevention, facts are what I want. With the passing of disease and degeneracy, man's elevation ought to be continuous. No one cares to predict the bounds of life or the possibilities of physical or intellectual development. I see in future development of man a solution to every mystifying problem of physics or metaphysics. Science will find those problems to be simple natural conditions which, when comprehended and applied to prevention, will develop a race of beings of a quality and fitness so superior as to be scarcely now dreamed of as possible. With the assurance of those conditions as a heritage to posterity, we have an incentive worthy constant united effort to realize. Physicians should call attention to the abuse of laws that govern advancement and suggest necessary measures for their correction. Our part in the great plan of continuity being suggestive, we should perform it creditably and leave to future generations its perfection and enjoyment. Well may we quote the Greek idylic—Bion:

"But since of life we have but one small share,
A pittance scant, which daily toils impair,
Why should we waste it in pursuit of care.
Why do we labor to enhance our store?
The more we gain, still coveting more.
Alas! alas! we quite forget that man
Is only mortal, and his life a span."

As a necessary step toward the accomplishment of the acme of prevention, we must lift man up out of the whirlpool of infamy and immorality to that lofty plane of living governed by purest psychical impulses of the highest moral conception. The fulfilment of that undertaking will be viewed with a sweet complaisance so realistic in its ideality as admittedly to be the culmination of erudition. Picture in your mind the man of the future, through the application of the science of prevention he has been freed from disease and imperfections; standing forth in all the beauty of perfection as the culmination of our labor—a creation of woundrous make and marvelous character with brain so exquisitely organized that as the physical instrument of intelligence, the center of sensation, the source of volition, the originator of will, it would now be impossible to describe it. It is quite possible that mental development will be on a plane so superior that longevity will be carried to a period so much in excess of our suggested ninety years that we are far short of its possibility.

Undoubtedly this is the best age the world has ever known—now at the opening of a great, vigorous, forceful, wisdom-inspiring century, with all known potentials working in harmony for the furtherance of knowledge and truth. Yet the ultimate attainment of a real knowledge of the facts we want is so far beyond the horizon of our imagination, that it seems a blue remoteness of astral splendor in the mysterious realms of speculative thought. However, we hope that some day, in the consciousness of higher destiny, our aims will be realized, our efforts rewarded with complete success, and the cherished object of our ambition attained.

We cannot linger in the beautiful creation of inventive genius or pursue splendid discoveries of modern science without falling into that mood of thoughtful admiration which, though it be a transient glow, is a purifying and elevating influence. With perfect prevention effective, a healthy, happy world of people living under cheerful conditions will pour forth grateful thanks in words of praise that are as loud and joyous in tone as those people are happy and contented in the enjoyment of their blessings.

DISCUSSION BY DR. PARKE.

By Dr. Parke—

The essayist's enthusiasm in his subject has carried him to the heights and it seems that he has carried with him some of the gentlemen. I am persuaded, however, that they cannot accept the real trend and conclusions of the paper. From the terms used—psychic force, astral bodies, undiscovered forces or power—as well as from the general tone of the paper, I strongly suspect that the Doctor is preaching occultism and is merely employing the well-worked and well-recognized possibilities of prevention as a basis upon which to erect his superstructure of occultism.

The Eastern devotees of the occult tell us that the astral body can separate itself from the physical body, make journeys to distant lands and return instantaneously to its tenement of flesh, thus annihilating time and space. They recognize psychic force as a separate entity, as does the essayist. They claim to possess knowledge of natural forces unknown to ordinary mortals—forces the essayist hints at.

For myself, I am unable to conceive of mind as an entity separate from the brain cells, and consequently unable to follow the Doctor into the heights.

By J. R. Wetherbee, M. D.—

Gentlemen of the Jefferson County Medical Society: I wish to thank you for extending the courtesy of the floor to me. I have listened with pleasure to Dr. Bankston's paper on Prevention and to the discussion. The reader of this valuable paper has touched the key-note of all true and lasting progress in medicine, as well as in everything else; for without ideals progress is wanting. While to some the idealistic trend of the paper may seem absurd and impossible, yet all seem to agree that could its main points be carried out, great benefit must follow. We are often too hasty in our condemnation. Before we pass final judgment on an ideal that seems beyond the possible, would it not be well to take a retrospective glance. The past has lessons upon which we may often climb to success. From the beginning of history men have advanced idealistic theories that have met with naught but scorn from their cotemporaries, yet today we live and practice our profession with their thoughts as our foundation.

Only one hundred years ago Jenner made his announcement to the world. You are all familiar with his struggle for recognition, yet who today would put aside vaccination. From this beginning multitudes have been saved and medicine progressed until antitoxin and serum therapy are realities. Two hundred years ago Rosseau advocated teaching the child from nature, yet not until near the end of this century was

his method recognized as the only true method, and today even the primer you chance to pick up bears his impress.

This paper to which we have listened is not further above us, nor do its theories seem more impossible to us than did those of Rousseau, Jenner and half a hundred others; it is idealistic, but that to me seems to be in its favor. The great trouble with man is not high ideals, but low ideals or none at all. Reasoning from the history of the past, who knows but conditions may so change that fifty years may see many of these very ideals partially or completely carried out.

HISTORY OF AN OUTBREAK OF SMALLPOX AT ALABAMA CITY.

By Erastmus T. Camp, M.D.,

GADSDEN, ALA.

Read by title before the Medical Association of Alabama, April 20, 1900.

Alabama City is a cotton manufacturing town with a population of 3,000. The inhabitants are employed almost exclusively in the mill, store and the different offices of the company, and hence they mix and mingle together to a great extent.

The town is located midway between Gadsden and Attalla. The two latter are five miles apart. Gadsden has a population of 6,000 and Attalla 2,000. They are connected by an electric car line and three railroads, which pass through Alabama City.

On December 12, 1899, I was notified of some cases that were suspicious of being smallpox in Alabama City. On investigaiton, I found eight cases of smallpox, some of them typical. They were just entering the pustulor stage. The eight cases were in seven different houses, located in different portions of the town. All the patients were operatives in the cotton mill. All males, except one. All worked in the same department.

After a thorough investigation, I was unable to trace the origin of the disease, but think it most probable to have been through cotton used in the mill that was contaminated with the contagion of smallpox, either in picking, ginning or handling in some other way. This theory is supported by the fact that the mill had been using cotton shipped from localities known to have been infected with smallpox, and all, or most all of the persons worked in the same department at the time the disease developed. Another theory is that some machinery had been shipped from some of the eastern cities where smallpox probably existed. A third theory is that some mild case was brought into the place by some

transient person and was never recognized. I am inclined to accept the first theory offered.

As above stated, the eight cases were in seven different families in different portions of the town. These seven houses would average eight persons to the family, making a direct exposure of fifty-six persons, plus the exposures in the mill and other associations before the cases were confined to their beds. There was no restraint until I saw them on the sixth or eighth day of the disease. After the first group of cases there were no more for some six or eight days.

In eight or ten days later there had developed some twenty or twenty-five cases, after which they continued to develop at a very rapid rate until the spread of the disease reached its zenith, some five or six weeks after the first group of cases.

At the time of the outbreak, there was no hospital or vacant house available, and we were forced to let the cases remain in the houses in which they occurred until a hospital could be constructed, which was some ten or fifteen days later. Guards were immediately placed at every infected house, under the supervision of myself as county health officer. None of the inmates were allowed to enter, and the patients were isolated from the remainder of the household as much as possible.

As soon as hospital room was provided, all cases that had occurred up to that time were transferred to the hospital. The remaining portion of the family were given a thorough bath with soap and water, and under the management of competent bathers, male and female. After this they were sponged off with a 1 to 2,000 bichloride mercury solution. They were dressed in clothing that had not been exposed to the contagion of small pox or if exposed had been fumigated with formaldehyde gas. They were not allowed to remain in the infected house until it had been fumigated. The fire-places and other openings in the rooms were sealed up by pasting paper over them, and by chinking the doors and windows, so as to make the room as near air tight as possible. This fumigating was done by fumigating a part of the house at a time, about half, and on the following day finishing up the remainder. After the formaldehyde gas was thrown into the room, it was kept closed for at least twelve hours, then it was opened up and aired for an hour or two, when it was reoccupied by the family.

The cases that occurred after the hospital was built were immediately transferred to the hospital, and the rest of the family and houses were treated as described above.

At the outbreak of the disease, vaccine virus was ordered by wire and was on hand by the third day after the discovery of the disease. The masses of the people were very much opposed to vaccination. The city

council passed a compulsory vaccination ordinance, but, owing to the opposition, it was not thought expedient to enforce it, and so it was modified so as to apply to persons who were directly exposed. Persuasive measures were instituted to the masses, but owing to the great opposition a great many were not vaccinated.

We labored under another great disadvantage. The first lot of vaccine virus proved to be inert, or almost so, although it was ordered from one of the most popular manufacturers in the country. So other virus had to be ordered from a different house. The inertness of the first virus, I am satisfied, caused many more cases than would otherwise have been.

QUARANTINE AND OTHER REGULATIONS PREVENT THE SPREAD OF THE DISEASE.

On the day I discovered the disease, I notified the committee of public health to meet on the following day. After a thorough investigation of the situation of the facts, they made a recommendation to the Judge of Probate and Court of County Commissioners and the municipal authorities of the towns of Gadsden and Attalla, advising that a quarantine be established against Alabama City, said quarantine to be under such rules and regulations as might be prescribed by the committee of public health, and to be enforced by the county health officer.

After three or four days dilly-dallying between the county and municipal authorities of Gadsden and Attalla, it was decided to establish quarantine against Alabama City at the expense of the county. This quarantine consisted of a cordon around Alabama City by placing guards at all the avenues of travel leading into Alabama City, including the car line and railroads. Under these regulations all persons outside of Alabama City were allowed to enter the limits of quarantine by procuring a pass from any of the various guard. This pass admitted them and allowed them to pass out, and was taken up by any of the guards on their exit.

All persons within the limit of the quarantine wishing to pass out were required to procure a certificate from one of the resident physicians, after taking an oath that to the best of his knowledge he had not been exposed to the contagion of smallpox within the last fifteen days. These certificates when first issued were good for five days from date of issue, but were later on, by order of the committee of public health, changed to one day only.

No person was allowed to come in contact with any known infected person or place; this was prevented by the local guards around the infected houses. No household goods or wearing apparel was allowed to be removed from the quarantine limits without first being disinfected by the county health officer and bearing a certificate to that effect.

This quarantine was kept up for two weeks, when the Probate Judge, without conferring with the committee of public health, called it off. At the time the quarantine was called off, the disease had increased until there were some fifty or sixty cases, and new cases occurring daily.

The inhabitants of Alabama City were indignant over the idea of being vaccinated, and were opposed to being carried to the pest house. The whole town was in an uproar. A great number were frightened for fear the disease would become an epedemic, and it looked at this time as though there would be a stampede. At this crisis, the municipal authorities of Gadsden and Attalla, upon the recommendation of the committee of public health, established a quarantine against Alabama City for the protection of the citizens of the towns. This latter remained in force until the disease was under control, and the hospitals were finished and all the patients were removed from their residence to the hospital and the inmates of the house, the household goods, and the houses disinfected, as above described.

After the hospitals were completed and the patients moved into them, the houses were disinfected, and the exposed persons vaccinated, the spread of the disease began to give way like the flames of a building on fire under the play of a stream of water. On the 15th of March, the last case was discharged.

During the course of the disease, 140 cases developed (all white), and in thirty-seven different houses, with nine deaths. Some of the houses at the beginning, had as many as eight or ten cases to the house, many of them only one, especially toward the last of the outbreak. In no instance was the contagion traceable to an infected house after it had been fumigated.

There were only two cases developed in Gadsden that the contagion was traceable to Alabama City, and none in Attalla; notwithstanding the close proximity of the two places to Alabama City. And passing was allowed all the time, under the restrictions above mentioned. The two cases that occurred in Gadsden were contracted prior to the establishment of the quarantine.

In the county there were no cases developed that were traceable to Alabama City, but some few cases developed in adjoining counties that were traceable to Alabama City; one of them prior to the establishment of the quarantine, and the others after the raising of the quarantine by the Probate Judge, as after that time there was no restraint from going into the country, provided they did not pass through Gadsden or Attalla.

CONSTRUCTION OF HOSPITALS.

The first hospital that was constructed was built on a cheap plan, but comfortable. The main part of the building was 20x40 feet, with two

open fire places, a veranda in front. In the rear of this, and joining to it was two 16x16 feet rooms, divided by a 6-foot hall, the latter connecting with the main building by a door. The hall extends to a porch in the rear of the building, said porch extending to the cooking and dining departments. The capacity is twenty or twenty-five beds. At the time the first hospital was finished there had developed more cases than it would accommodate, and a school house near by was converted into a hospital by adding a cooking department. The capacity of it is twenty beds.

By this time it was evident that more hospital room was necessary to control the disease, and a second one was built with a capacity of sixty beds. It was built in a hollow square, with verandas extending all the way around on the inner side of the square. This included the cooking, dining and nurses departments. The building was weather-boarded and lined with builder's paper; heated by heaters in each department, and is a very comfortable building, well arranged. A closely-built bath-house with heater, and an air tight fumigating rooms were built some thirty yards from the last described hospital, also a room for the doctors to change their clothing in, and such other purposes.

All the hospitals were furnished with new cots and mattresses, new bedding out and out. Every thing was kept clean and neat. Immuned nurses were placed in charge of the patients.

MEDICAL TREATMENT AND MANAGEMENT OF THE PATIENTS.

The predomic symptoms were treated as the necessity of the different cases demanded. Each case was annointed with borated vaseline,1dr. of the former to 1oz. of the latter, this was done once or twice daily, and was kept up daily until desquamation began to take place; when it was changed to 5 per cent. carbolized vaseline. At this stage a bath of soap and water was given daily, or every second day, after which the patients were sponged off with a 1 to 2,000 bi-chloride mercury solution, and afterward annointed with carbolized vaseline. The clothing was changed every few days. Soiled clothing, sheets and pillow cases were boiled and washed as occasion demanded.

This annointing, I am convinced, lessened the contagion of the disease, and hastened the recovery from five to ten days. It prevents pitting and renders the patient more comfortable, by allaying itching and reducing the fever temperature in the febrile stage.

The sputa and other excreta was removed from the room at frequent intervals.

From my past experience in treating and managing smallpox, I would add to the above; by fumigating the rooms to the extent of tolerance

with formaldehyde gas, several times a day, with a small generator that can be placed in the room. This would overcome any unpleasant odor and tend to destroy the germs of the disease. Also, each patient should have nose irrigated and the throat gargled with a normal salt solution, from two to three times a day. This method would render the patient more comfortable, shorten the course, and lessen the contagion of the disease.

During the course of the outbreak, we had several cases of relapses or recurrent attacks. No writer that I have consulted refers to similar cases. Some writers state that about 1 per cent. will have the second attack. This I infer has reference to cases that have the second attack some considerable length of time after the first. The first case of this kind that came under my observation was in the person of a young lady in Alabama City, who was taken ill with all the prodromic symptoms of smallpox. She had been vaccinated, and it was just beginning to take. My first visit was on the third day of her illness. She had a slight rash on her face, neck, and chest. On the following morning the rash had extended over the entire body, and papules were beginning to appear on the parts the rash first made its appearance. At my second visit, the two attending physicians and myself decided that it was a well marked case of smallpox. She was sent to the hospital against the protest of her mother. In a few days after she entered the hospital, the rash disappeared and some half dozen well marked bumps appeared. They were of the large flat variety. They ran a regular course, and about the 18th or 20th day it was considered safe to discharge her; she was given a warm bath and sent home. On the following morning I was called to see her, I found her with an elevation of temperature, considerable rash, and quite a number of well marked papules. She was sent back to the hospital and developed a well marked, but mild case of smallpox, which ran a regular course in three weeks. When she first entered the hospital she occupied a room, in which there was some twelve or fifteen cases; some of which were very severe. The family became very indignant over the matter, and threatened to sue for damages. We had several other similar cases in Alabama City.

A well marked case of the same kind was a Mr. H. and family (white). Mr. H. resided in Gadsden and had contracted the disease in Alabama City. I first saw him on the second or third day of his illness, he reported that he was taken with a chill, and all the other prodromic symptoms of smallpox. I found him well broken out with considerable rash and some papules. The case was diagnosed smallpox. Mr. H. had not been vaccinated, and his wife and children were vaccinated at my visit, and the family was placed under guard. At that time Gadsden had no small-

pox hospital, and Mr. H. remained at home with his family some twelve or fifteen days, when he and family were transferred to a hospital which had been provided. A few days previous to this transfer, the wife and one of the children developed the same disease Mr. H had; neither of whom had been otherwise exposed. After they had been in the hospital ten days the other child developed the same disease.

There were no other cases of smallpox in the hospital except a Mr. B., who had a very mild case, and who was in the desquamative stage when admitted. Soon after Mr. H and family were placed in the hospital, a negro with a severe case of smallpox was admitted in a different hospital, some 100 yards distance from the one Mr. H. and family were occupying. Mr. H. stated that he had no association with the negro except that sometimes they met at the spring, and used the same axe for chopping wood, during their convalesence. After about the fourth week of Mr. H's. attack, he was pronounced well and ordered to take his bath preparatory to being discharged. Owing to some delay in carrying out the orders, Mr. H. did not leave the hospital as contemplated, and on the following morning he broke out with the second attack of smallpox, which ran about the same course as the first, except that the second case was a little better marked than the first.

In about two weeks after Mr. H's. second attack, his wife and child who first had the disease developed a second case of smallpox, which ran about the same course as the first. Two weeks later the other child also developed a well marked second case. The last three cases as in that of Mr. H. had recovered from the first attack before the second came on.

I am satisfied in my own mind that all these persons had smallpox in both attacks. The only theory that suggests itself to me by which to explain the second attack, is that during the first attack the susceptibility of the system to the infection was not entirely exhausted, that is, all the elements of the system, upon which the infection of smallpox feeds, were not exhausted or impressed, consequently there was material left for a second attack. It may be stated that during the first attack of these persons they were closely confined in ill ventilated rooms, therefore they were exposed to the infection in a very concentrated form.

I find that the contagion of smallpox is much greater during the febrile stage than most writers claim. This is especially true when remaining in a close room for several hours, and persons sleeping on the same bed, during this stage, I find to be very susceptible to the disease.

NOTES ON SOME OF THE NEWER REMEDIES.

By H. A. Moody, M.D.,

Professor Materia Medica and Therapeutics, Medical College of Alabama (Medical Department University of Alabama).

Most of us are flooded with samples, letters, circulars and gratuitous so-called medical journals, advertising the products of manufacturing chemists, or the wares of wholesale compounders of special prescriptions. These articles generally have fantastic names, ending in -ol or-ine, and are put up in such a manner that after they have been introduced by the physician they can thereafter be prescribed by the laity for the disorders they pretend to cure, to the detriment of the profession and the danger of the public. The numerous headache and neuralgia cures, all depending upon acetanilid for their powers, are illustrations of this condition of affairs, and many cases of acetanilid poisoning have resulted from the reckless use of compounds pretending to be distinct chemical discoveries.

The progressive physician does not feel warranted in rejecting all these preparations without trial. Many of them are so flimsily disguised that he who is posted upon such matters easily recognizes the fake. Such, of course, at once repose in the waste basket. Others offer reasons for their appearance that should, if substantiated, be valid. With such the conscientious doctor feels obliged to experiment, lest he might reject an agent which would be useful to his patients. The writer has for many years been in the habit of trying such drugs first upon himself, in full doses, in order to judge of their physiological effects, and this practice has enabled him to exclude from use or define the effects of not only many proprietary preparations, but also some which, like hyoscine, have enjoyed a temporary popularity on the word of "authority." Now and then, however, a really useful addition is offered to materia medica, and in this series of articles the writer proposes to notice a few that have stood not only the personal test, but that also of clinical experience.

The first drug to be considered is heroin. This drug is a modified form of morphin. We all remember the surprise felt when apomorphin appeared, that a morphin salt should prove emetic instead of narcotic. It demonstrated the possibility, however, of important changes in the therapeutic effect of morphin by chemical modification, and the writer

was therefore not entirely incredulous of the claims made for heroin. A supply was procured immediately and investigations begun. Upon ingestion the experimenter found as follows. The twelfth of a grain produced a slight sensation of nerve stimulation, similar to that of a minute dose of morphin. Repeated four times a day there was some lassitude, but no somnolency. An important point was that it did not blanch the stools like morphin or codein. No constipation resulted, but the peristaltic motion was somewhat retarded. No effect upon the skin could be noted. It was next exhibited in several cases of phtisis in the city hospital, and also, whenever opportunity presented, in bronchial irritations of all kinds. Afterwards it was exploited in private practice. Two years have elapsed since these observations began, and the place of heroin is fixed in the writers opinion. So much has been written concerning this drug that no long list of cases will be given here. A few typical instances will suffice.

Case 1. A young lady, thin, weak, with an irritative cough which was worse in the morning. Expectoration very slight, evening temperature 100.5-10. Night sweats marked and persistent. Physical examination failed to reveal any extensive lesions, and as the trouble had arisen within two months it was considered incipient tuberculosis. She was given proper diet, exercise, and a capsule of guaiacol carbonate five grains four times a day. In addition she had a tablet of heroin, one twelfth of a grain, night and morning. Improvement began at once. The irritative cough subsided, the night sweats gradually disappeared, the afternoon temperature approached the normal, and appetite improved. A notable gain of flesh and strength accompanied the subsidence of symptoms. In two weeks the heroin was reduced to one dose a day, at bedtime, and in a month only an occasional dose was necessary. Six months later the patient reported the improvement as still existing.

Case 2. Morphin victim. Just returned from sanatorium, where a "cure" had been effected. Troubled with acute intestinal indigestion. After evacuation of intestine she resorted to morphin for relief, and could not stop it. She was given heroin hydrochlorate, the twenty-fourth of a grain, hypodermically, twice a day for three days, then once a day for a few days, then it was stopped. She declared it did not give her the sensations of a morphin injection, but quieted her nerves and relieved the wandering pains. Part of these results were undoubtedly due to suggestion, as she had been told that such would be the effect.

Case 3. Incipient tuberculosis. Clinical and physical signs well de-

veloped. Tuberculosis caused death of all other members of family. Given guaiacol carbonate, 5 grains with oils of cinnamon, eucalyptus and gaultheria in doses of one drop each four times a day, in a capsule. Heroin one twelfth from one to three times a day as required. Reported great relief from irritating cough, and subsidence of night sweats. Two months later improvement continued. No effect on appetite, digestion, or color of stools. Dosage of heroin reduced to one tablet at bedtime.

Case 4. Advanced tuberculosis in woman 40 years old. Great emaciation, profuse expectoration, evening fevers, night sweats. Heroin hydrochlorate one forty-eighth of a grain with elixir terpin hydrate thirty drops four times a day afforded great relief, enabling patient to sleep for hours, which the incessant cough had heretofore prevented. No effect on appetite or digestion. Dosage was reduced to twice a day, and cough sufficiently ameliorated.

Case 5. Neurotic, lithæmic, asthmatic. Cough incessant at night, and wheezing. Expectoration profuse, and loud and universal rales over both lungs. For cough gave heroin hydrochlorate one twenty-fourth grain, elixir terpinhydrate thirty drops, tinct. belladonna two drops, pro re nata. Two doses a day gave entire relief.

In the irritative coughs following influenza it excels all other remedies with which the writer is acquainted. One case took quarter of a grain, by mistake, three times a day, for a week. The result was slight constipation and constant disinclination to effort, but the relief was so great that she was satisfied. The dose was reduced to the twenty-fourth of a grain night and morning, with equal benefit and a disappearance of the undesirable results. These few cases, selected from a large number in hospital and private practice indicate the range of usefulness that may be ascribed to this new drug. For the accommodation of physicians druggists should provide themselves with heroin in twelfth and in twenty-fourth grain tablets, and in powder. With heroin hydrochlorate in twenty-fourth grain tablets, and in powder. Heroin hydrochlorate in aqueæous menstrua, so that for solutions, either for hypodemic use or for ingestion the hydrochlorate should always be specified. Owing to smallness of dose it is not an expensive drug. No case of heroin habit has yet been observed by the writer. Finally, it is not well to inform the patient of the name of the drug which is so useful. The writer has already seen it prescribed for a patient in whose case it was inapplicable, by another who had received great benefit from it. Such patients should be warned that the drug is too powerful for a domestic remedy, and should be prescribed by a physician only.

CORRESPONDENCE

VIENNA, AUSTRIA, LETTER.

Editor Alabama Medical Journal:

Dear Sir: I have been thinking for some time I would write you a few lines from this far-away part of the world, but have been so very busy I have neglected to do so. But I will write you a few lines now. I have been here now nearly two months, and am well pleased with my trip. Here they have, as you know, the largest hospital in the world. It covers in all about forty acres, and the city has grown up all around it so that it is almost in the very heart of the city. The hospital is constructed so that every room is an outside room, and it has ten hofs or courts which are perfect models of beautiful shrubbery and flower gardens, and are crowded with many patients. I see from a periodical here where the average of patients treated is about seven thousand per week; on an average of 1,500 dismissed, and almost 200 die per week. So you see the clinical material is all that could be desired.

It is certainly fine. I have seen as many as seven carcinomas operated on in one morning. Six of these were of the uterus and the other was of carcinoma of sigmoid, operated on by Professor Gussenhauer, who succeeded Professor Billroth. They have here three professors on the practice of medicine. All have different lecture rooms. Three professors of surgery—Gussenhauer, Albert and Lorens, the orthopedic surgeon. Gynecology, Professors Chroback and Shanta, with many assistants, hold down these chairs. They rarely ever operate; their assistants do most of that. Professor Kaposi is still master of diseases of the skin, while Professor Neuman has the genito-urinary swing here. Professor Kraftebing has the chair of nervous diseases, and is so crowded in his room you have to have a ticket to get admission. Professor Albrecht has the pathological department under control, and this is really one of the finest courses given here, and is the only place in the world where there is such a display for a pathological lecture as there is here every evening from 5 to 6 p. m. It is very amusing to see about 20 or 25 Americans (nobody else) sitting around a great marble postmortem table covered with livers, brains, lungs, hearts and every other organ contained in our bodies, looking like a great butcher stall, with a German professor lec-

turing away for dear life in pure German. It is a sight worth seeing to look on the different faces, the new arrival who doesn't know a word of Dutch is straining his ears to hear a familiar sound; and then there is the man just beginning to comprehend, and then up to the "old stager," who talks like a Dutchman and slings his "des" and "das" at you at every opportunity. You pay a goulden (50 cents in our money) for each one of these lectures.

Every morning the doors are open at the postmortems, and it is a good place to go when you have nothing else to do. This is the greatest place for private courses in the world, I suppose. Private courses are given in everything, and almost at any hours. The best courses are hard to get. Some you have to wait for years to get, and then have to buy some other man's place. I believe this place beats the world on scientific diagnosis of disease, pathology, skin and genito-urinary diseases. The surgery is good and complete, but they are what in America we would call slow. Gynecology is the same old "seven and six." Take out all the uteri and tubes possible and this is done well but slowly.

They seem to make very little to do here over antiseptics, etc., but their chief idea seems to be absolute cleanliness, and never wet, if possible, any cut surface or wound. You never have a man standing by irrigating the field of work during an operation, not even when the operation is completed do they allow the surface to be irrigated.

I find here that the microscope is used in and for almost all cases for diagnostic purposes. They don't seem to know what to do unless they know the exact condition of red blood corpuscles, leucocytes, etc., and they must be counted in every case; and the urine, they seem to never know when to quit examining it.

I have learned to have great respect for a Dutchman's opinion when it comes to diagnosis, if it does take him a long time to work it out.

There is an average here of about 200 American physicians. Some stay two or three years, and others only a few months. But they go and come with the regularity of a summer sun. There are doctors here from South America, Russia, Japan and China; in fact, from the world over. And it is real amusing to see how these doctors have to study Dutch. Oh, that terrible language! You think of it by day and dream of it by night, but you must learn it, as everything is given in it.

I suppose you have noticed from the journals of the death of Dr. Geo. Appostoli in Paris. I was afraid when I left Paris that he would not recover; but they wrote me in Rome he was improving. He was a great man, a giant among men, and the electro-therapeutic world has lost a man whose place will be hard to fill. He was a man you could love as

well as respect, and I am thankful indeed that it fell to my lot to know and love him. I was with him the last time he was ever in his office, and what was at first thought to be only a cold, proved to be influenza, on which pneumonia developed and caused his death.

I will close for this time, and may write you again before leaving here. Yours most respectfully, J. D. Gibson.

THE EFFECTS AND DANGERS OF CHLORETONE.

Dr. R. D. Rudolph (Canadian Practitioner and Review, June) summarizes the results of his investigations as follows: 1. Chloretone would seem, as has been found by Houghton and Aldrich, to be an ideal general anæsthetic for physiological work. There might be some doubt about the recovery of the animals, however, and this would limit its use to cases in which recovery is not desired. The preliminary administration of chloroform or ether might be used here, but this increases the risk, of course. 2. It has little or no effect upon the pulse, respiration, and blood pressure for hours, but eventually, if the dose is large enough, these become depressed and the animal dies, the heart stopping before the respiration. 3. Chloretone has a most marked and profoundly depressing effect upon the body temperature, lowering this more than any other drug with which we are acquainted, with the possible exception of alcohol. This depressing effect is evident before the animal is even drowsy, and is in ratio to the dose given. It may be partially prevented by keeping the animal very warm. 4. Any drug which can exert such an effect on the total heat of the body is one which requires to be used with great caution in medical practice. This is doubly important as the drug is very slowly got rid of, and we know of no antidote, with the exception, perhaps, of external warmth.—New York Medical Journal.

EPIDIDYMECTOMY IN TUBERCULAR TESTES.

W. Watson Cheyne in the third Harveran Lecture (Lancet, December 30, 1899) says that because the loss of both testes exercises a very deleterious effect on the patient he prefers the operation of epididymectomy to that of castration. That while the method of Bardenheuer for removal of the epididymus destroys the generative function of the testicle, yet it leaves the organ to supply the internal secretion which exerts a very great influence on the well-being of the patients. There is also reason to believe that after removal of both testes patients who have become elsewhere infected with tuberculosis succumb very rapidly to the attacks of the bacillus. Objection to the operation of castration led Bardenheuer to attempt to save the organs and he was the first to describe this operation.

MELLIN'S FOOD

for the Home Modification of FRESH COW'S MILK

Simple dilution of cow's milk with water is without avail in obviating the tendency of the milk to form tough and more or less indigestible curds.

PROFESSOR CHITTENDEN

The use of a natural cereal extractive containing saccharine and gummy matters and soluble albuminoids as well, such as our great and inspired teacher Liebig himself advocated, is in accordance with the developments of science since his time. Mellin's is a genuine Liebig's Food.

PROFESSOR LEEDS

MELLIN'S FOOD COMPANY. BOSTON, MASS

"SOUTHERN INDUSTRY."

The Only Exclusive Manufacturing House in the South.

E. J. HART & CO., Ltd.

Manufacturing Chemists, Pharmaceuticals,

New Orleans, La.

ESTABLISHED 1838 — TRADE E. J. & Co. LTD. MARK — INCORPORATED 1897.

"We beg to call the attention of the Medical Fraternity to the following Standard Preparations Manufactured by us:"

Alimentary Elixir, "Harts," is made from selected Beef by pre-digestion, dissolving entirely the fibre of the Beef, transferring same in paptonoids. Its use is first recommended for re-convalescents, where a tonic-stimulant is indicated, and for the sick where solid food cannot be ingested.

Unlike most of the liquid preparations of beef, which contain only that portion of meat soluble in water (or in other words, the stimulating portion of meat), in contains also the fibrin or nutritious principle combined with the stimulating juice and salts, and is free from fat. It is most grateful to invalids, and is particularly adapted to convalescents in recovering from debilitating fevers and other diseases.

It is not a patent or secret medicine in any sense, and furnishes the physician with a perfect food stimulant.

Bismuth Cream, "Harts," is a Sub-Carbonate Bismuth, in a very fine state of division, kept fluid by an excess of water, a portion of which may be noticed when the bottle remains at rest for some time. Our Bismuth Cream represents pharmaceutical skill of the highest order and, we believe, has never been successfully imitated. Kindly examine it microscopically, comparing it with Boric Acid or some other "impalpable" powder.

One teaspoonful represents, or is the equal of five grains of the sub-nitrate, It is employed for its soothing, sedative, and feebly astringent influence upon the mucus membranes, and can be combined with alkalies, anodynes, astringents, etc, but not with acids; try it with Tincture Opium and Tincture Kino or Catechu, or with Rhubarb and Pancreatin.

It is useful in sub-acute gastritis, gastralgia, pyrosis and allied stomachic diseases, irritation of the intestinal and urethral mucus membranes, Diarrhœa, Dysentery, Leucorrhœa, Gonorrhœa, etc. It is suggested to use egg albumen mixed with Bismuth Cream for injection in catarrhal conditions.

Hematic Cordial. "Harts." A permanent and perfectly neutral solution of Iron and Manganese, Peptonized.

From recent experiments synthetical hæmoglobin seems to produce identical results with the natural, such a hæmoglobin builder is Hematic Cordial, which has none of the unpleasant properties of Iron, it is neither acid nor astringent, and does not affect the teeth, nor disturb the stomach of the most delicate. It will be found more efficient than other remedies in Anæmia, Chlorisis, Malaria, or any other disease in which the red blood corpuscles are lessened or afflicted, it is compatible with all drugs except acids.

Liquor Antiseptic. "Harts." Our LIQUOR ANTISEPTIC (which is compounded in accordance with the late Prof. Lister's formula) has become quite a favorite with the medical fraternity, and is in exclusive use in some of the leading Hospitals. We claim all for it that its uses demand by the profession. We beg to call your attention to the fact that it has full strength, and contains but a small percentage of alcohol.

HARTS MORRHUVIN, (or Wine of Cod Liver Oil), "Plain."
" " " " with "Pepsin."
" " " " with "Beef Juice."
" **ELIXIR "CASCARA, active with Pepsin."**
" **"LACTATED PEPSIN."**
" **SYRUP TASTLESS QUININE (any strength).**

We solicit your correspondence. Catalogue, pamphlets and other data cheerfully furnished on application.

Selected Articles.

THE TREATMENT OF HYPOCHONDRIASIS AS A SYMPTOM OF MALNUTRITION.

By W. H. Vail, M.D.,

ST. LOUIS, MO.

Hypochondria is sometimes classed as a neurosis, sometimes as a psychosis, but in either case it is recognized as an evidence of disturbed cerebral function. The characteristic feature is the morbid attention which the patient devotes to the study of his own physical condition, and the unwarrantable degree of anxiety which he exhibits regarding it. There may or may not be a physical basis for his fears, but when there is, the trouble is in the distortion and exaggeration of symptoms, and the disproportionate anxiety manifested in relation to them. "The mere fact that such fears arise" says Prof. Walton, "does not constitute the malady, but the unreasoning pertinacity with which the hypochondriac clings to his fancy, after its absurdity has been pointed out by competent authority, is hardly to be mistaken for the working of a healthy mind."

It is doubtless true, therefore, that in typical cases, perversion of the cerebral function is the predominant symptom, but in actual practice many persons of a hypochondriacal disposition will be found in whom this unhealthy state of mind is due primarily to an unhealthy state of body. In a physiological sense, mind and body, or rather the state of mind and condition of the body, are too closely connected to be divorced; and, in the majority of instances, melancholia and despondency are often but the result of a general malnutrition. In such cases hypochondria is a symptom, rather than a disease, and in any rational treatment of the same, the underlying constitutional disturbance must be sought for and removed, it being evident that sedative remedies and so-called "nervines" would only serve to mask the trouble.

Dyspeptics are notoriously hypochondriacal, a fact which is not surprising when we consider that an illy nourished brain, like any other ill fed organ, cannot perform its functions in a healthy and rational manner. In cases of indigestion and loss of appetite, mental inquietude and despondency almost invariably co-exist. The relation of insufficient hepatic excretion to the mental state is yet sub judice, but there can be no reasonable doubt that some connection exists. From the earliest period, hepatic derangements—as the term hypochondria denotes—have been associated with certain disorders of the mind, a relation which certainly holds good in respect to the mental perturbation occurring in cases of dyspepsia.

Another morbid condition in which hypochondria is found to be a prominent symptom, is the so-called gouty or uric acid diathesis. But inasmuch as the uric acid toxin is now supposed to be the result of imperfect oxidation and metabolism due to hepatic insufficiency, patients thus afflicted may for all practical purposes of treatment be classed with the dyspeptics above mentioned. In other words attention should be devoted toward securing a more energetic operation of the digestive powers, and thus aid the general processes of nutrition and assimilation.

Impotency and loss of sexual appetite are also accompanied with well-marked hypochondriacal symptoms, the relief of which will depend less on treatment directed especially toward the latter, than upon the restoration of the general nutritive powers primarily responsible for the enfeebled condition. In summing up, therefore, it may be said that the hypochondriac will be benefited most by that agency which best suffices in stimulating to the normal the digestive process, enabling the system to secure the quality and quantity of nourishment necessary to a due performance of the various bodily functions, among which cerebral functions must be properly included.

Various digestive tonics have been recommended from time to time, to stimulate gastric and intestinal secretions and restore the appetite, but none have better stood the test or served the purpose than the vegetable bitter tonics, especially gentian and columbo, whose effective action in this respect has been unequalled. Nux vomica, too, has been found serviceable, and when constipation and nervous depression are prominent symptoms, is particularly indicated. For weakness of the sexual function, so frequently observed in these cases, nux vomica in combination with damiana has proved most effectual.

The effect of these stomachic tonics, in stimulating the appetite and enhancing the nutritive powers, has long been recognized by the profession, has been utilized in the wine Cortexalin,* where these ingredients are severally incorporated with Burgundy wine as a base, forming an excellent palatable mixture, acceptable alike to the taste and the most delicate and sensitive stomach. The writer has found it of especial value in dyspepsias accompanied with hypochondriacal symptoms, and cites the following as a type of many similar cases in which the results obtained were prompt and satisfactory:

J. B., lawyer, aged 46, had become a confirmed dyspeptic. For more than two years he had lived almost entirely on manufactured foods. As an aid to digestion he had taken everything he could hear of from common charcoal to pepsin. His anxiety regarding his own condition had become exaggerated to a morbid degree. He not only became ill tempered

*Composed of gentian, columbo, cinchona rubra, damiana and nux vomica, in combination with Burgundy wine,

and morose, but could think or talk of scarcely anything else but his stomach. He anathematized members of the medical profession, and would have none of their advice. His irritability grew to such an extent that former clients began to seek advice elsewhere. He finally became despondent, neglected business and devoted his time and attention to reading medical works, especially those relating in any way to the subject of dyspepsia. He at last restricted himself to liquid foods, devoid of albuminous principles, and ate but twice a day. He became thin and anæmic, and so wrought up regarding his case that it was feared his mind would become unbalanced.

His friends at last prevailed upon him to seek medical aid, and he presented himself at my office about the middle of March. He was at first disposed to be a little stubborn in regard to the acceptance of advice, but after a day or two surrendered at discretion and followed out directions with painstaking exactness. Examination revealed no disorder of an organic nature, the only evidence of disease being a disturbed nutrition and defective metabolic process as indicated by a slightly coated tongue, pallor of the skin, and scanty, high colored urine loaded with urates. There was also some constipation.

The patient was advised to re-engage heartily in his business. He was to purchase a bicycle and devote an hour each day to learning how to ride, after which he was to take a tepid salt water bath and rub himself thoroughly for twenty minutes with a course crash towel. No internal medication was prescribed except the medicinal wine above described, taken in doses of a wineglassful, three times daily, fifteen minutes before eating. No directions were given regarding the diet, as the patient had already learned from experience what to eat and what not to eat.

Within a period of two weeks an improvement in the appetite was reported, the patient stating that for the first time in over a year he began to take food with a relish. The coating of the tongue gradually disappeared, and the bowels moved more regularly. Though the urine still contained bile pigments and urates, it was somewhat clearer, less acid, and more profuse. In April a trip was taken to the sea shore. On his return a fortnight later, the patient admitted that he had begun to entertain hopes of his recovery. He had decided to devote his entire attention in the future to law and politics, leaving the study and practice of medicine to them that understood it.

The treatment was continued for two months longer, though the patient reported, toward the end of May, that he had no further need of medicine. He had gained noticeably in flesh and strength, was feeling in good spirits, attentive to his business, and no longer annoyed his friends with a report of his symptoms. His appetite was restored, nourishing food being taken regularly and properly digested.

An interesting point in this case was the late admission on the part of the patient, (who was a bachelor) that he had been greatly worried over the loss of sexual vigor. He now stated that there was no further cause for alarm in that respect, that the return of his appetite for food and desire for sexual gratification had kept apace, and that the vigor and enjoyment of both were all that could be expected of a healthy individual.

PREMATURE RUPTURE OF THE MEMBRANES.

Dr. Gustav Kolischer (Memphis Medical Monthly, June) says that a complication causing much inconvenience in parturition is the premature rupturing of the membranes, which prevents the preparatory distention of the cervix brought about normally by the advancing of the membranes filled with amniotic fluid.

This is more keenly felt in primiparæ or in cases of oblique position. The labor is an extremely protracted one, and correcting or other operative interferences are rendered exceedingly difficult. An expedient means in such cases is the application of a colpeurynter, which unhappily is too seldom made use of. The rubber bag should not be filled to its full capacity, lest it break under the pressure of the pains. Pulling the attached tube in these cases is not indicated; the colpeurynter is solely left to the influence of the pains. The presence of the colpeurynter inside the uterus produces effective pains, while at the same time this extraneous body promotes a serious moistening of the cervix. The colpeurynter acts as a substitute for the membranes, and by its acting like a wedge becomes gently stretched and dilated. After a while the bag drops into the vagina, and nothing is in the way of the further development of the second parturient stage.—N. Y. Medical Journal.

CARDINAL SIGN OF COLLES' FRACTURE.

M. W. Ware (Med. Record, March 31, 1900) says that in 300 cases of Colles' fracture the much talked-of-silver-fork-desormity was present in less than 10 per cent. of cases, and its absence is therefore of little diagnostic significance. A better ground of diagnosis depends on certain fixed anatomical relations. The styloid of the radius is always at a lower level than the ulnar styloid. In 95 per cent. of Colles' fractures there is impaction, and as a necessary result the radius is shortened and the radial styloid rises to or above the level of the ulnar styloid. This sign is so constantly present as to be the cardinal pathognomic sign of Colles' fracture, and gives one a reliable guide for complete reduction. This diagnostic point is mentioned by few and emphasized by none of the works on fractures.—Medical News.

Editorial.

JNO. C. LeGRAND, M. D.,.....Editor and Prop.

COLLABORATORS:

T. W. Ayers, M. D., Anniston, Ala.
H. A. Moody, M. D., Bailey Springs, Ala.
J. T. Searcy, M. D., Tuscaloosa.
W. E. B. Davis, M. D., Birmingham.
J. A. Goggans, M. D., Alexander City.
Goldsby King, M. D., Selma.
Frank T. Smith, M.D., Chattanooga, Tenn.
John Brownrigg, M. D., Columbus, Miss.
J. B. S. Holmes, M. D., Atlanta, Ga.
Nathan L. Clarke, M. D., Meridian, Miss.
E. D. Bondurant, M. D., Mobile.
B. L. Wyman, M. D., Birmingham.
Thomas D. Parke, M. D., Birmingham, Ala.

The Journal will be mailed on or about the 15th of the Month. Subscribers failing to receive it promptly will please notify us at once.

We cannot promise to furnish back numbers.

SUBSCRIPTION $2.00 A YEAR, IN ADVANCE

The editor is not responsible for views expressed by contributors.

All communications should be addressed to THE ALABAMA MEDICAL JOURNAL, Birmingham, Ala.

The Specialist.

After clearly arguing many points and discussing other questions of importance to the medical profession, Dr. Witherspoon, in an oration before the American Medical Association, at Atlantic City, June 5-8, (Journal of American Medical Association), says of the specialist:

"No man is prepared to go into any special field until he has done general work enough to familiarize himself with disease in all of its phases, and neglect of this training is responsible for so many extremists who never temper their thirst for notoriety with common sense. It is this which has caused the loss of many lives and much unnecessary mutilation of the human body. It is this that gives birth to fads and faddists. It is more than probable that the appendix of our forefathers occupied a position downward from its cecal attachment until the surgical dictum went forth, "No man is a perfect man, so long as he has his appendix." Now you find this troublesome little remains of the "missing link" has left its normal habitat and hidden behind the cecal pouch.

"Again, take the spectacle fad. Glasses in the past were an insignia of honorable old age; now we truly find them from the cradle to the grave. Even the negro "coon," who has been noted for keenness of vision, following the uncertain meanderings of the opossum with unerring precision during the dark moon, or seeing a chicken on the highest roost in the darkest night, must now have "specs" to walk the streets in broad daylight.

"All honor to true and legitimate specialism; it should be welcome and aided by every general practitioner, as a scientific and correct division of labor in a field broad enough for all, but, this rushing into specialism without the above preparation is truly appalling, and, in my opinion, is injurious, not only to the general profession, but to the truly well-equipped specialist."

Personal Life.

It is gratifying to note the splendid record made by the medical profession in every department of medicine and the position which the physician takes as a citizen, as well as a doctor. The ideal physician is the subject which Dr. W. W. Keen takes for his address before the students of the Rush Medical College June 21, 1900 (Journal of American Medical Association). In the course of his address he says:

"The ultimate basis of esteem is personal character. Wealth for a time may lend its glamor; intellectual attainments for a time may dazzle the judgment; power for a time may achieve apparent success, but when the testing time comes, as it must come to every man when some great temptation to do wrong confronts him, wealth and intellectual power are as if they were not; character is the one thing that tells in this life and death struggle. Having that, you will win the fight and be crowned with the laurel of victory. Wanting that you will succumb, defeated and dishonored. The struggle may be a public temptation known of all men, and if you fall your fall will be like that of Lucifer; or it may be hidden in your own breast, known only to God and yourself; but if you win, the victory is just as great as measured by the eyes of Omnipotence, for a character has been saved and strengthened; a true man has attained his growth.

"It is due, I am glad to say, to this prevalence of high character that our profession has won such a lofty place in the esteem of the community. Its purity is almost never impeached. * * * * In my opinion, it is the highest tribute that can be paid to the character of our profession and equally to the credit of our patients that this mutual confidence is so seldom abused and the tongue of scandal is so seldom busied with noxious tales. When you remember that there are over one hundred thousand physicians in this country with daily possibilities of

wrong-doing, is it not marvelous that this sacred trust is so jealously conserved?

"Greatness of character finds its best expression in kindness. To no one are so many opportunites for this fine trait given as to the physician. In the heydey of health and happiness he is not needed, but when sickness and weariness and woe come, when the bread-winner may be taken, or the loved mother's gentle life may be in peril, or a sweet little child in whom is centered all the tenderness of unbounded love is lying ill, and death seems to dog the doctor's footsteps, then the trusted physician, wise of head and kind of heart, is indeed a welcome visitor. Then can his gentle touch give assurance; then can his sympathetic voice bring hope; then can the thousand and one acts of thoughtful kindness bind to him for life the anxious hearts looking to him as the messenger of life. Even in the daily routine of a hospital clinic, a kind word is often better than any medicine."

A Medical Cabinet Officer.

For several years the importance of having the medical profession represented in the Cabinet of the President of the United States has been urged, but up to now no definite steps have been taken by Congress looking to the creation of such an office.

All will agree that nothing is more important to the people of any country than their health, and it has long been a well established fact that to prevent the entrance and spread of contagious diseases into and in this country that there is an important work which can best be done by the government under the direction of a medical director. For several years the people have clamored for a national quarantine law, but to carry into successful operation such a law it is necessary that there should be a medical director.

Another matter which should receive the attention of the secretary of public health, as a member of the President's Cabinet, is the adulteration of food. There are annually thousands in this country poisoned by adulterated food, and the government should have an official with power to examine manufactured products and to testify as to their quality.

There are other duties which could best be handled by the Secretary of Public Health, as a member of the President's Cabinet, but this office will never be created until an organized effort is made on the part of the medical profession so as to have the members of the profession interest the Senators and members of Congress of their respective States and districts in the matter. It is only by earnest and personal effort that such matters are ever brought to a successful issue in the Congress of the United States.

County Presidents.

The monthly or quarterly meetings of the medical societies in Alabama are largely what the presidents of the different societies make them. If the president does nothing more than have the secretary give notice to the different members that a meeting of the society will be held at a given place on a named date, the meeting of the society in nine cases out of ten will be a failure. But if the president, in ample time before the date of the meeting, arranges for the reading of papers and the discussion of cases by members who are qualified to interest their fellow laborers, and gives notice that papers will be read on stated subjects and that cases named will be discussed, the rule is that the meetings are well attended and that they are interesting and profitable.

It also adds much to the interest of meetings of societies for an occasional paper to be read by an invited member of recognized ability from another society.

These are only two of many ways by which the president of a county society can make his society interesting and profitable to its members who attend.

CONVINCES BY CURING

The unvaried and unquestioned success achieved by the use of Tyree's Antiseptic Powder in the treatment of Leucorrhea and Gonorrhea is due to its logical construction.

Being Non-Toxic and Non-Corrosive, Tyree's Antiseptic Powder is a scientific commingling of agents which have clinically demonstrated their benign and curative properties without impairing the integrity of the tissues.

Leucorrhea

AND

Gonorrhea

FORMULA—Parts: Sod. Bor. 50, Alumen 50, Ac. Carbol. 5, Glycerin 5, the cryst. principles of Thyme 5, Eucalyptus 5, Gaultheria 5, and Mentha 5.

The antiseptic and germicidal influence of Tyree's Powder insures the prompt destruction of all pathogenic micro-organisms. As an astringent cleanser, it abates all excessive catarrhal or purulent discharges. It also stimulates and imparts renewed vigor and tone to the inflamed and enfeebled mucosa.

The speedy recovery succeeding the employment of Tyree's Antiseptic Powder in Leucorrhea and Gonorrhea, exemplifies the wisdom of using a rational remedial agent designed to accomplish a definite purpose rather than experiment with mendaciously exploited cure-alls.

½-lb. with Clinical Reports, by mail, 80c.

J. S. TYREE, WASHINGTON, D. C.

Miscellaneous Notes.

We are very grateful to the subscribers who are sending in remittances are on subscription.

We call special attention to the medical college announcements in this issue of the Journal. These are all first-class schools, and students are requested to look over the list.

The demand for the last few months for sample copies have been greater than we could supply. We are beginning to fear that not a few doctors are securing medical journals by asking for sample copies, thereby saving a small amount of money which they should pay on subscription. We are willing and glad to send sample copies on a legitimate request, but we have a blister for the fellow who may be discovered as a cheat.

DR. EDWIN L. MARECHAL HONORED.

We are informed that the degree conferred by the University of Alabama Wednesday upon Dr. Edwin L. Marechal, of Mobile, was that of doctor of laws. This is a high compliment, but worthily bestowed. Dr. Marechal is a student not alone of his profession, but of all the great questions that interest the thinker of the day, and has by voice and pen contributed not a little to general information upon the subjects that have received his attention.

CONSTIPATION IN INFANTS.

We should see that the infant's dietary is regulated with due regard to his powers of digestion. Excess of starch must be corrected, and it is best to have recourse to one of the malted foods. Mellin's Food is especially valuable in cases where there is this tendency to constipation, as in many children the food has a very gentle laxative effect.—Eustace Smith, in "British Medical Journal."

AN AMERICAN REMEDY IN IRELAND.

The Antikamnia Chemical Company have forwarded to us from their London House, No. 46 Holborn Viaduct, samples of their five-

grain antikamnia tablets, and also of antikamnia and codeine tablets. The former are so well known that it seems hardly necessary to do more than refer to them as an unequalled analgesic. The antikamnia and codeine tablets contain four and three-fourths grains of antikamnia and a quarter of a grain of codeine. This is a valuable combination, the synergetic effects being all that could be desired.—Extract from Dublin Medical Journal, March, 1900.

Reed & Carnrick have recently added complete physiologic, chemical, pathological and bacteriological laboratories to their plant at 42 to 46 Germania Ave., Jersey City, N. J. The laboratories are conducted in a manner so as to guarantee prompt, confidential and accurate reports. They are supplied with the best reagents and most modern and complete apparatus and instruments for accurate work in physiology, pathology, chemistry, and bacteriology. The complete accessories, microscopic instruments, incubators, etc., are of the best make, and were furnished by the reliable and old-established firm of Queen & Co., of Philadelphia, Pa. The profession is invited to submit specimens and to investigate the laboratories. Fees for examination are very moderate; they may be had on application.

The Anodyne Treatment of Acute Peritonitis, McCaffrey ("The Etiology, Pathology and Treatment of Acute Peritonitis," 1899), observes that the most pronounced indication for treatment in peritonitis is that for the relief of pain. Blisters and counter-irritation, the older resorts are practically useless. Hot-water bags and poultices are far superior, but the relief they afford is only temporary. In some cases the ice bag is more grateful than hot applications. But whether hot or cold is employed, it should be relied upon only until other lines of treatment can be instituted. Papine should be given in teaspoonful doses every hour, and the doses repeated frequently enough to afford the desired results. Relief from pain, short of narcosis, should be sought, and this is generally easily obtained by proper dosage. Papine does not produce nausea, but rather prevents this symptom. In the event of the development of more or less prostration, a proper stimulant, such as strychnine or nitro-glycerine, should be judiciously employed.

NUTRITION IN SEVERE GASTRO-INTESTINAL DISEASES.

Dr. J. E. Thatcher (Medical Century) states that in the case of patients suffering with malarial fevers, and especially children, there

comes a time when the question of what food should be given becomes one of the gravest importance. In a case of this kind in a baby, 18 months old, in which extreme exhaustion existed after the subsidance of the fever, it was found very difficult to nourish the child, all food being refused or vomited. The case seemed almost hopeless, as the patient was apparently starving to death. A trial, however, was made of lacto-somatose given in a mixture of equal parts of oatmeal water and cow's milk, which was well tolerated without nausea or vomiting. Improvement set in from the moment of taking the first dose of lacto-somatose. The preparation relieved the gastric disturbances, stimulated the digestive organs, and created natural appetite and the power to digest other food. Under its continued use perfect recovery ensued.

SUBSTITUTION: CAUSE AND EFFECT.

An unsuccessful preparation or one which has not gained popularity with the physician is never substituted. It is only those articles which have through their merit won the esteem and confidence of the medical profession and have demonstrated their therapeutic value which suffer from this evil. Take, for instance, Micajah's Medicated Uterine Wafers, which have stood the test of time and have proven their great worth to the doctor as a remedy of exceptional value in the treatment of diseases of women. This preparation was the first local application presented to the profession in the form of a wafer and should be given the credit for this original and novel form. Solely through merit it has become immensely popular, and, as a consequence, it is most extensively substituted. Therefore, we wish to call our reader's attention to the necessity of carefully specifying "Micajah's Medicated Uterine Wafers" on their prescriptions and insisting upon the same being dispensed, and to the danger of a substitute being foisted upon their patients. Do not be led astray by similar sounding names. To insure results and protect your patient, care should be taken to prescribe the original preparation.

KEEP TAB ON TIME.

Believing thoroughly that "a thing of beauty is a joy forever," and that an article of beauty and utility combined is worthy of preservation, the New York Pharmacal Association has prepared for distribution to the medical profession a handsome and artistic perpetual calendar, which is now ready for mailing. Instead of presenting a calendar

at the beginning of the year, according to the usual custom, the above company prefers the season when the physician is not deluged with all sorts and conditions of chronological recorders, and is thus better enabled to welcome and appreciate such an addition to his office. The new Lactopeptine Perpetual Calendar is not intended for hanging upon the wall, but to stand upon the doctor's desk, and for this reason has a strong easel back to support it. The coloring is exceedingly soft and attractive, consisting of delicate shades of lavender, purple, crushed strawberry, and buff yellow. The few words relative to Lactopeptine are entirely unobtrusive, and do not interfere in the least with the general artistic effect. In the near foreground on either side are two gracefully-draped female figures with flowing hair; around the edges appear the various signs of the Zodiac. One of these calendars will be sent to any physician who may request same.

Forbes' Music House to be Torn Down and Rebuilt

Entire Stock of Pianos, Organs, Sewing Machines and Small Musical Goods Thrown on the Market

REGARDLESS OF COST.

Great Sacrifice Sale Begins July 16th and Closes July 26th. The Chance of a Life-time to Buy a Piano Below Wholesale Cost. Small Monthly Payments.

The contract has just been let out for the tearing down and rebuilding of the mammoth Music Store of E. E. Forbes, Montgomery, Ala., and instead of the present structure, Dexter Avenue will be adorned with the most beautiful, most complete, most commodious music store south of the Mason and Dixon line.

The work of tearing down will begin on the 27th of July, and on that day there must not be a single piano, organ, music box or sewing machine in the store.

To bring about this end, Mr. Forbes has concluded to place his entire stock of pianos, organs, music boxes and sewing machines on the market at less than the goods cost, freight and other expenses considered.

Never before in the history of the music trade in Alabama has there been such an opportunity offered to those wishing musical instruments and sewing machines, and the readers of the paper (your paper) who are interested are to be congratulated if they take advantage of this opportunity.

Space forbids an account in detail of the rare bargains offered by this enterprising house, but pianos that have been selling at $325.00, $350.00 and $375.00 will be thrown on the market at $215.00, $227.00 and $249.00. Large new upright panos, in handsome cases, that have sold everywhere for $250.00, $275.00 and $300.00 will be marked down to $158.50, $173.50 and $198.50.

Strictly high grade pianos, in fine cases, known the world over, which have for years been sold at $450.00, $500.00 and $550.00, will be sacrificed at $335.50, $368.00 and $427.00. Twenty-five dollars cash and ten dollars per month buys any of them. Farmers, or those wishing annual or other plans of payment, may write and arrange satisfactorily. Freight must be paid by the customer, as the prices are too low for the house to bear the expense.

Fine organs which sell for $55.00, $75.00, $110.00 and $125.00, will be closed out at $39.00, $58.00, $70.00, $86.00 and $98.50. Machines reduced in same proportions. Goods shipped out on approval. If not found as represented, you need not take them. Sheet music and small musical instruments at half price. This is not a fake ad, but facts. Mail orders given special attention, and good selections made.

Write at once for further information before stock is picked over.

Sale closes July 26th, 9:00 p. m.

E. E. FORBES,
26 Dexter avenue, Montgomery, Ala.
Birmingham Branch, 2018 Second avenue.

A HAND-BOOK FOR NURSES. By J. K. Watson, M. D., Edinburgh, Late House Surgeon Essex and Colchester Hospital. American Edition Under the Supervision of A. A. Stevens, A. M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania. Contains 413 pages. Price, $1.50 net. Philadelphia: W. B. Saunders, 925 Walnut Street.

The author of this valuable book gives just such information as is needed in the intelligent management and nursing of the sick. Among other things, he gives information as to the choice and mode of administration of the various articles of diet; of the action and administration of drugs; inflammation and its results; wounds and their management; the complication of wounds; cases of emergency. These are only a few of the many subjects treated by this very excellent work.

WARNER'S NEW THERAPEUTIC REFERENCE BOOK. Regarding this hand book of therapeutics, we wish to say it is one of the very few guides of its kind now offered to students and busy practitioners. As its preface states, it is not intended to teach graduates anything about therapeutics, but is to be regarded rather as a handy aid to a poor memory. Many exceedingly valuable tables are represented, including the metric table, thermometric equivalents, etc., valuable tests for various matters, including urinary tests for albumen, sugar, etc., etc., comparative values of certain foods, a complete dose table of drugs, a list of diseases and their remedies, hints as to indications of pregnancy, recommendations as to post mortem examinations, etc., etc. The brief mention above gives but a faint idea of the many valuable departments of this new book.

The subjects are interesting and are written in such a manner as to give a comprehensive idea of what is in the author's mind. "Warner's New Therapeutic Reference Book" must not be confused with "Warner's Therapeutic Reference Book." The latter has been discarded, the new one taking its place. So many new features have been added and the other parts entirely rewritten to a great extent, that it may be termed a new book. It is bound in two styles, one leather, at 50 cents, and the other leatherette, at 25 cents per copy, postage prepaid in both instances.

SAUNDERS' QUESTION COMPENDS—ESSENTIALS OF SURGERY. Arranged in the Form of Questions and Answers. Prepared Especially for Students of Medicine by Edward Martin, A.M., M.D., Clinical Professor of Genito-Urinary Diseases in the University of Pennsylvania. Price, $1 net. Philadelphia: W. B. Saunders, 925 Walnut Street.

Since the issue of the first volume of the Saunders' Question Compends over 175,000 copies have been sold, which furnishes the very best evidence of the value of these self-helps to medical students and physicians. The chapter in this book by Professor Martin, giving a full description of the handkerchief and roller bandage is alone worth the price of the entire book.

ELEMENTS OF CLINICAL BACTERIOLOGY. For Physicians and Students. By Dr. Ernest Levy, Professor in the University of Strassburg i. E., and Dr. Felix Klemperer, Privat-Docent in the University of Strassburg I. E. Second Enlarged and Revised Edition. Authorized Translation by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic, etc. Philadelphia: W. B. Saunders, 1900. Pp. 7 to 441. Price, $2.50.

The general practitioner cannot be expected to be a trained and practical bacteriologist, but the time has come in the science of medicine when he must know something of bacteriology in order that he may have clear conceptions as to the causes of disease and the morbid processes which result, and that he may intelligently labor to prevent and

cure diseases due to specific germs. The work of Levy and Klemperer has long been appreciated by workers in bacteriology, and it is fortunate for the profession in America that it has been rendered into the English language. This work does not deal alone with bacteriological technics, but takes up each disease and considers the germs or micro-organisms which can and do produce it. Information is given as to how these micro-organisms are to be detected. The work is made just as practical as it is possible to make it, and it will prove quite an addition to any medical library.

FRACTURES. By Carl Beck, M. D., Visiting Surgeon to St. Mark's Hospital and to the New York German Polyklinik, formerly Professor of Surgery, New York School of Clinical Medicine; Consulting Surgeon, Sheltering Guardian Society Orphan Asylum, etc. With an Appendix of the Practical Use of the Rontgen Rays. 178 Illustrations. Price, $3.50 net. Philadelphia: W. B. Saunders & Co.

It is essential that every man who does a general practice of medicine and surgery should be thoroughly familiar with the diagnosis and treatment of the different fractures; for when called to treat a fracture, there is no opportunity of consulting works on surgery, as would there be to secure time to read up on cases of fever or other diseases which does not require that some definite plan of treatment be adopted at once. As an aid in being thoroughly equipped in dealing with fractures, probably no more valuable work has been published in this country than Dr. Beck's work on Fractures. In addition to the classification, signs, diagnosis and treatment of fractures, this book contains 178 Rontgen or X-Ray illustrations, which exposes fractures in their living state. All the common and some of the rarer types of fractures are included in these illustrations, and no man who practices surgery can fail to be interested in studying them. Typographically, the book is a gem, and serves to illustrate the marked improvement of recent years in the art of printing.

MORPHINISM AMONG PHYSICIANS.

The editor of The Quarterly Journal of Inebriety returns to this question in a brief note in a recent issue of that journal, quoting the traveling agent of a large drug house, as follows: "Within ten years my orders from physicians for morphine have rapidly increased. I have a number of regular customers who order from two to five thousand one-fourth grain and one-half grain tablets of morphine for hypodermic use every month. Some of these physicians buy for their patients, others clearly use morphine themselves. Many of these doctors have a large practice, and are known to be morphine-takers. Other physicians buy very largely of deodorized tincture of opium and opium pills. In a small village of five thousand, where seven doctors practice, one physician bought five gallons of tincture of opium every year. In another town where the practice was limited, large quantities of opium pills and preparations of codeine were sold to two physicians. Other narcotis, such as chloral hydrate, hyoscyamine, and cannabis indica are called for in large quantities beyond the natural demand of practice."—Medical Record.

SOME POINTS IN THE THERAPEUTICS OF HEART DISEASE.

W. H. Thompson (Medical Record, March 17, 1900) says that in the treatment of all chronic heart diseases every organ of the body which has to do with nutrition must be called upon to do its share to help the laboring heart, and if any of them are out of order they must be set to rights. The writer says that physicians should not forget that all nervine medicines, such as digitalis, strophanthus, nitroglycerine, strychnine, caffeine, sparteine, and the rest, can never be other than temporary makeshifts. All that they can do is to relieve symptoms, and that only for a while. Permanent improvement is to come from other agents and measures which restore nutrition rather than stimulate function. One of these, which the writer holds to be of paramount importance, is fresh air. Fresh air should be systematically and continuously provided without effort on the part of the patient with failing heart. Then the great strain of serious symptoms will finally vanish, and that not temporarily, as is too often the case with drugs. The writer says he never fails to administer iron and keep it up continuously in chronic heart disease. The bichloride of mercury, given in doses of 1-24 grain three times a day for a week has long proven efficacious in the treatment of chronic endarteritis. The writer has also prescribed five grains of iodide of sodium three times a day for weeks and months in chronic enlargement of the heart accompanied by arterial disease.—Medical Age.

Abstracts.

DELIVERY OF THE CHILD.

As physicians we deal with human life, and it is not always fair sailing, the unexpected often happens, and circumstances often arise in the course of the second stage of labor when decision must be made with promptness and executed with judgment, and these are more apt to happen to the general practitioner of the rural district than to his more favored brother of the city.

He often finds himself confronted with difficulties, and with no one to aid him in his trials and comfort him in his tribulations. But we should keep our wits sharpened and at our finger-ends and be equal to the demand of the occasion. Fearless by nature, self-reliant by education, determined by innate desire to work out our own destiny, we enter faithfully upon the discharge of our duties. The physician should enter the lying-in room with a cheerful and encouraging face, and give proper attention to both physical and mental conditions. He should examine his patient and find out the exact position of the child, study the symptoms; for to be forewarned is to be fore-armed, and it is a principle of warfare never to underestimate the force of your antagonist; the satisfaction of feeling that you know your case, and thereby master of the situation will afford you a feeling of security that will amply repay you for the time spent in getting that information, which will enable you to assuage pain, to forestall danger, and to limit the duration of suffering.

We should do what we are sure is the best for our patients and let the old women and meddlesome midwives do or say what they may. Meddlesome midwifery when quoted to stay the rash hand of the ignorant is well applied, but when used as an argument to check the action of a physician who knows what is the best for his patient is sadly misapplied.

I don't believe in a physician emptying the contents of his saddlebags into a woman's stomach, neither do I believe in his sitting with his hands folded till his patient dies or becomes exhausted in the futile efforts at expulsion.

I think it is the duty of every doctor to rob the lying-in chamber of all the agony possible. It is a cruel and disgraceful thing for him to sit and listen, unmoved by the agonizing cries of a woman in this, the most critical time of her existence, when he has the power to safely and easily relieve her.

With the use of chloroform the second stage of labor can be made very much less terrible to the prospective mother and the frequency of abortion in the conjugal onanism, thus indirectly diminished.

There are very few who now contend that chloroform in the lying-in room is dangerous. The most of the objections to its use are things of the past. I have been unable to find a single well authenticated case of death occurring from its use under such circumstances . There remain but two objections to its use, first that it retards labor and second that it favors post-partum hemorrhage. We must remember that in the exhibition of chloroform in labor the object is not surgical anesthesia, but merely to obtund and take the cutting edge off the pains. The uterus is composed of unstriped muscular fibres which would continue to act even if the anesthetic were pusshed to the surgical degree. The most of you have observed that labor pains cease for a time when you first enter into the lying-in room, but after awhile they begin as before. Such a retardation may occur when chloroform is given, but it is of short duration, and if it is given properly the patient will soon begin to add voluntary efforts when she finds they are less painful than before. By giving it properly, I mean that it should never be pushed to the surgical degree except during operation or when the head is pressing on the perineum. Its use in the latter instance is important as it enables the doctor to control the advance of the presenting parts, delivering it in the intervals between pains, and thus diminishing the danger of laceration of the external structures.

In regard to chloroform favoring post-partum hemorrhage I have never seen a case that could properly be attributed to its use, the only cases of post-partum hemorrhage I have seen have been the result of long and fruitless effort on the part of the mother, resulting in a complete fagging out of the uterus and necessitating artificial aid.

Before the second stage of labor the patient should be bathed, bladder and rectum should be empty, vulva and vagina should be rendered aseptic, clean clothes should be put on, and she should be confined to the bed which is protected by newspapers, placed in layers overlapping each other to a sufficient thickness, or an oil cloth, and then covered with a folded sheet or fixed in any way that would insure perfect cleanliness and protect the bed; therefore with a clean patient and your hands clean you will have nothing to fear from micro-organisms.

The secret of success in the management of a great many cases lie, as I believe, in changing the position in the beginning of labor. This should be attempted in every case of abnormal labor as soon as the physician sees the patient, and if he fails he should try to remedy it later if possible.

The preservation of the perineum is the most delicate task the physician has to fulfill, that is, to so regulate the exit of the child as best to avoid perineal laceration. The aim of the physician should be to develop the elasticity of the soft parts to the fullest extent and cause

the head to pass through the distended orifice of the vulva by its smallest diameter. Preliminary softening of the perineum is best accomplished by the continuous but not too rapid descent of the presenting parts. When the perineum begins to bulge, the physician should inform himself during each contraction of the strain to which the parts are subjected and when the perineum is stretched and danger of laceration is threatened, he should control the auxiliary expulsive forces, and as soon as the pain has subsided he should lift the head upward and forward through the vulva by pressure made with the tips of the fingers in the rectum, or let the patient hold her breath and expel the head by voluntary action in the interval of labor pains.

The head should now be held in the hand to keep it in the axis of expulsion, and the uterus should be compelled to expel the remainder of the child. When the child is born and the doctor is preparing to cut the cord, he is sometimes interrupted and told he must cut the cord longer, as the length of the penis at maturity depends on the length the cord is cut. I have never been able to verify or refute this idea, as the oldest male I have ever delivered is only nine years of age.—C. H. Johnston, M. D., in Memphis Medical Monthly.

"SHALL THE SPECIALIST DIVIDE THE FEE, ETC."

Dr. Emory Lanphear, of St. Louis, the distinguished editor of the American Journal of Surgery and Gynecology, has sent us an abstract of a paper of his with the above caption, and the request that we publish the same, with such comment as we see fit to make. We regret to say that we do not agree at all to the position our able contemporary takes in the matter under discussion.

Because the "attorney" divides the fees, is no reason why the physician should, and we can see no justice in either case. "The laborer is worthy of his hire," and the "distinguished gentleman," be he lawyer or surgeon, is entitled to a fee suited to the case, regardless of the attending physician.

The misfortune of the patient should not be made a pretext for mulcting him, to the extent of his pocketbook. The attending physician has a right and should receive a fair remuneration for his services, be they large or small. Some surgeons take advantage of patients who are able to pay, and demand fees out of proportion to the service rendered. We have heard of a case in which a metropolitan surgeon called to the country to do a major operation, doubtless making several trips, on the recovery of the patient was sent a check for $10,000, probably with the feeling that the sum was ample. The surgeon, however, at the same time sent his bill for $15,000, the two passing each other on the way. This shows the difference of opinion as to the value of pro-

fessional service on the part of the layman and the professional. In this case the patient was able to respond with his check and that settled it, but in some instances this could not be expected. Every man should do as he would be done by, be he surgeon, lawyer or layman, and then his conscience at least will be clear.

Let us to the text of Dr. Lanphear's abstract:

"When an attorney in a county seat has a client in danger of the penitentiary (whom he might defend successfully, but fears failure) and hence in need of the best of counsel, it is customary for him to seek some eminent lawyer of a great city and request his aid. In so doing does he approach the distinguished gentleman and say, 'I have a client accused of ———, who is able to pay $3,000 for his acquittal; will you take the case with me for this sum—leaving me the gratification of having done my professional duty?' By no means! He plainly states: 'My patron has $3,000 to pay for his defense; are you willing to take $2,000 of this to join me in securing justice for him?'

"Arrangements of this kind are made daily in every large city. Does any one ever suggest that the country attorney has been guilty of a dishonorable act in thus securing his city brother to do the major part of the work for $2,000, he retaining $1,000 for his services? Would any doctor, sued for $10,000, regard such a transaction as disgraceful, unethical, objectionable if thereby he were saved this sum?

"But let the question be one of saving life instead of securing liberty or preventing financial loss—and how different it is!

"If a country practitioner have a patient affected with recurrent appendicitis (upon whom he might operate with success, but fears possible failure), with a prospective fee of $600, must be—in order to be 'ethical,' write to some city surgeon to come to his help, take all of the $600 and leave him merely the satisfaction of a duty well performed, or at best, the little sum of money he may receive for a few visits at starvation rates? Upon what meat doth this our Cæsar feed that he hath grown so great?'

"Why should not the country doctor plainly say to the specialist: 'I have a patient with appendicitis who is able to pay $600. Will you operate for $400 and allow me $200 for the preparation, after treatment, etc.?' What would be wrong about this? Let Drs. Robt. T. Morris, of New York, and Burnside Foster, of St. Paul, who so vigorously maintain that division of the fee is unethical under any and all circumstances, point out what injustice would thereby be done to (a) the patient, (b) the attending physician or (c) the eminent surgeon. Why should we not learn a few things from the methods of our most noted lawyers, men who are above suspicion as to purity of motives? Have

we not hitherto been too unmindful of the financial interests of ourselves and our professional brothers?

"I insist that the payment of a 'commission' for all business simply 'referred' to a specialist, or for a mere consultation, is probably unethical—certainly demoralizing in tendency; but that division of the fee is perfectly honorable and right when the specialist and the general practitioner jointly share the work and the responsibility."—N. Y. Times.

THE ALLEGED USE OF POISONOUS BULLETS BY THE BOERS.

We are very glad to be able to publish the following very handsome exoneration by the Lancet for June 16th: "It has been stated pretty freely in the daily press that among other unfair devices adopted by the Boers in the present war was that of coating the Mauser bullet with a poisonous salt of copper—viz., verdigris. Strictly speaking, verdigris is basic acetate of copper, which may be obtained by allowing vinegar to come into contact with, or to evaporate on a used copper coil. The same French word, however, has been applied, but wrongly, to green rust (basic carbonate of copper) which forms on copper when in contact with moist air. Our special correspondent at the base also stated in a letter published in the Lancet of May 5, 1900, p. 1312, that he had seen a 'clip' of Mauser cartridges the bullets of which had been dipped in verdigris, but in our issue this week he reports that on being submitted to a thorough analysis this green coating proved to be not verdigris, but a mixture of paraffin wax and carbonate of copper, which, he adds, appears to have been used for the double purpose of preventing the cartridge suffering from damp and of supplying a hermetical closing between the brass capsule and the bullet, and thus preventing rust of the barrel. By the courtesy of Sir William MacCormac, who placed at our disposal some of these so-called copper-dipped bullets, we have been able to submit the coating as well as the nickel case which incloses the lead bullet to a compete analysis. The results are of special interest in regard to the accusations made as to the sinister intentions of our enemy, and we are confident that the interpretation to which these results lead is correct and absolves absolutely the Boers from the charge of tipping the Mauser bullets with a poisonous salt. It is essential to state that the Mauser cartridge consists of a brass case (containing the explosive and detonator or cap) to the anterior end of which is attached a bullet of lead inclosed in a nickel jacket. The Mauser bullets which we examined were covered seemingly with a green coating extending from the apex of the bullet to about a quarter of an inch along the brass cartridge case. On scraping this wax carefully off, however, the first shav-

ings proved to be quite colorless and, in fact, consisted of paraffin wax such as is used in making modern candles. As the scraping approached the surface of the nickel case, the shavings became light green, until on the surface itself the scrapings were quite green. The nickel case proved to contain on analysis not only nickel but copper, and the green wax contained both those metals also. We have not the slightest doubt, therefore, that the bullets in the first instance were steeped in melted paraffin wax or wax candles solely to prevent fouling the gun barrel and to protect the nickel case against rusting, to which this metal is particularly liable, and that after a time both the copper and nickel of the case of the bullet entered into combination with the stearic acid (which is commonly added to wax candles) in the wax and turned it green. The same phenomenon is familiar to everybody in the green tears of a wax candle in a brass candlestick. It has been suggested that the coloring was of arsenical origin, but we failed to find the slightest trace of arsenic. The fact that the wax on the bullets contained precisely the same metals as were present in the case entirely sweeps away the suspicion that the Boers entertained a malicious intention and expressly coated their Mauser bullets with poisonous copper salts. This should be stated with some emphasis in order that our enemy may be treated with common fairness. Further, it is doubtful whether the bullet would carry the smallest amount of this green wax coating (considering its comparatively low melting point) to its billet. The metals only existed in traces. Many erroneous and contradictory statements have been made in regard to this matter, and we are glad to be able to present such a satisfactory and, as we believe, perfectly true interpretation of the facts as revealed by analysis, which hitherto does not appear to have been carried out at that length or with that precision which the serious nature of the suspicion demanded."—N. Y. Med. Journal.

THE BLOOD PRESSURE IN SLEEPLESSNESS AND SLEEP.

Dr. Lewis C. Bruce (British Medical Journal, June 23d) read before a recent meeting of the Edinburgh Medical Society some observations made on the inmates of Murthy Asylum on the general blood pressure in sleeplessness and sleep. The instrument used was Barnard and Hill's sphygmometer, and Hill's statement that "the normal general arterial pressure in the horizontal posture equals about a hundred and ten millimetres of mercury" was assumed to be correct. The first points investigated were: 1. Are there any unusual conditions of blood pressure which are associated with sleeplessness in mental diseases? 2. What changes occur in the blood pressure when sleep is induced in these cases by drugs? The cases ranged themselves under two classes: 1. Sleeplessness with high blood pressure (anything above a hundred and thirty millimetres of mercury). 2. Sleeplessness with low blood pressure

(anything below a hundred and ten millimetres of mercury). The drugs used to induce sleep in these patients were paraldehyde, sulphonal, trional and potassium bromide. In 1, paraldehyde in large doses (two drachms) was found to be the most certain sleep producer. Sulphonal came next, followed by trional; potassium bromide was unsatisfactory. When sleep was induced by any of these drugs, the blood pressures always fell to a hundred and ten or below a hundred and ten millimetres of mercury during sleep. In 2, paraldehyde in large doses of two drachms acted as a brain excitant, tended to raise the blood pressure, and satisfactory sleep was never obtained. After small doses, however, from fifteen to thirty minims, these same patients slept well. In this class trional in twenty-grain doses and then sulphonal were the most satisfactory drugs. Experiments were then made with erythol tetranitrate in doses of one grain daily in cases suffering from sleeplessness with high blood pressure, the object being to induce sleep by artificially lowering the blood pressure. Out of nine cases, three were immediately and permanently benefited, three were very temporarily relieved, and in the remaining three cases the drug had no effect even in doses of two grains daily. A second series of observations was made upon convalescent patients in order to throw light upon the following questions: 1. Is sleep possible with blood pressures of a hundred and thirty millimetres of mercury or higher? 2. What relation does the morning blood pressure bear to the evening pressure when a person is sleeping well? 3. Are there any differences in the blood pressure of the same person asleep under the action of drugs and sleeping naturally? The results were as follows: 1. Sleep is possible with high blood pressure, but the pressure always falls to a hundred and ten, or about a hundred and ten, millimetres of mercury after the condition of sleep is established. 2. The general blood pressure is, as a rule, higher in the morning than in the evening in a state of health, and the reverse of this holds good in some cases of sleeplessness. 3. In the drug sleep induced by paraldehyde the blood pressure falls at its lowest, about ten millimetres of mercury below the habitual blood pressure of the same person when sleeping naturally. As the effect of the drug passes off, the blood pressure rises again, and eventually passes to the blood pressure habitual to that person in natural sleep; in short, drug sleep does pass in some cases into natural sleep.

A VISIT TO THE NEWEST PSYCHOPATHIC HOSPITAL.

Peterson (Medical News, January 20, 1900) urges the need of hospitals for the acutely insane in the larger cities. Not only would these afford material for clinical study and give a stimulus to laboratory investigation, but the diagnosis would be made and the proper treatment

begun earlier, and the patient would have better chances of recovery. Although psychopathic hospitals are unknown in this country, England and France, in Germany they have been in successful operation for some time. The hospital at Giessen is composed of a group of eleven cottages in close proximity to the university. Of these, four are used for each sex; one for excited, one for restless and suicidal, one for quiet, and one for private patients. About one hundred patients can be accommodated. The clinical examination rooms are provided with instruments and apparatus for treatment, and the policlinic for the dispensary patients gives opportunity for studying the very early forms of mental disorder. A scientific library, amphitheatre, museum and laboratories of pathology, microscopy, physiological and pathological chemistry contain everything essential to the study of the relation of mind to body.

THE CARE OF THE RECENT CASE OF INSANITY.

(Burr, Indiana Medical Journal, January, 1900.)—In mental excitement from whatever cause, the object is to reduce the excitement and strengthen self-control. Rest in bed, away from the disturbing influence of friends, with very little exercise, is best for the patient. Constipation is best treated by calomel in divided doses followed by effervescent salts or aperient waters. A simple enema will usually be required early in the case, and sometimes later on. The use of the catheter is frequently required. The ice-bag to scalp or spine is of value in acute, exhaustive cases associated with rapid pulse and high temperature. The cold pack and cold bathing sometimes give satisfactory results. Depressing drugs should not be given. Chloral hydrate, sulfonal or trional are the best sleep powders. Tonics and tissue builders are indicated in all cases. Patients do much better in a hospital than at home. The treatment of depression is about the same, there being, however, greater need of improving the circulation and stimulating peristalsis. Electro-massage and salt baths usually produce quiet and tendency to sleep. Mechanical feeding should be avoided if possible, but if the patient persistently refuses food and there is threatened exhaustion, it must be resorted to. In weakened mental states, as neurasthenia, morbid tendencies or obsessions often appear and are very difficult to treat. Tonic treatment is required, and the patient must be encouraged to keep his mind occupied and off the unhealthful topic. In convalescence let the patient vegetate mentally, and do not permit him to be disturbed too soon by the access of friends. Massage, hydrotherapy and light physical employment build up the strength and promote cerebral nutrition. Suicide and self-mutilation should be carefully guarded against.—Medical Fortnightly.